OCCUPATIONAL THERAPY STAKEHOLDERS' PERSPECTIVES OF LEVEL I FIELDWORK OPPORTUNITIES: A MIXED METHODS COMPARISON

By
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Abstract

The Affordable Care Act's focus on preventive health and specialty practice has created a high demand for qualified health professionals in the United States. With the rising number of academic programs in the past decade, the occupational therapy profession is experiencing shortages in the number of qualified faculty and fieldwork placements available for high-quality experiential education. In response to these shortages, academic programs are developing creative fieldwork opportunities using standardized patients in simulated environments for prospective clerkships. There is a need to investigate the perceived academic rigor of these newly developing formats of fieldwork education. This mixed methods study explored stakeholder perspectives about Level I experiential training in a standardized patient program and compared those to fieldwork experiences in traditional and role-emerging settings. Occupational therapy assistant students completed Likert-scale questionnaires that were adapted with permission from the National League of Nursing. The quantitative data, analyzed using the non-parametric Friedman test and the Wilcoxon signed rank test, revealed that innovative training in the form of standardized patient programs and nontraditional fieldwork support independent problem-solving, peer collaboration, personalized training, and learning in diverse ways. Qualitative data collected during interviews with faculty, fieldwork educators, and potential employers shed light on the various viewpoints surrounding the benefits and challenges of embedding creative clerkships in the curriculum. Conscientious practice and user-centered approaches can help in designing job-embedded professional learning and facilitate greater understanding of educational innovation among stakeholders.

Keywords: fieldwork, experiential learning, standardized patients, simulation

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To my parents for their love, encouragement, and support.

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Executive Summary

The Accreditation Council for Occupational Therapy Education (ACOTE, 2018) describes experiential learning as an integral part of the occupational therapy (OT) curriculum. As a part of entry-level experiential training, students engage in fieldwork in traditional medical facilities such as hospitals, inpatient facilities, outpatient clinics, and rehabilitation centers (Costa, 2015). The introductory fieldwork training, often referred to as Level I fieldwork, typically involves dynamic, interactive professional learning experiences with qualified fieldwork educators, clinical faculty, and practitioners from various disciplines (Costa, 2015). A fieldwork educator is a designated OT practitioner who supervises students during their professional training (ACOTE, 2012).

Emerging trends in primary care, interprofessional education, and preventive medicine (Gawande, 2011) have instantiated experiential learning models in community-based practice. Students often train in community settings including schools for the visually impaired, homeless shelters, accessible fitness facilities, and resource centers for developmental disabilities (Costa, 2015). Although these settings do not typically hire OT practitioners (Hanson, 2011), academic programs have developed creative fieldwork opportunities by collaborating with local programs. With increased focus geared toward community-based rehabilitation, the role of OT could likely emerge in certain community settings (Johnson, Koening, Piersol, Santalucia, & Wachter-Schutz, 2006). Only 2% of the OT workforce, however, is employed in these role-emerging sites (American Occupational Therapy Association [AOTA], 2015). Since most OT practitioners work in hospitals, rehabilitation centers, and outpatient clinics, students typically complete fieldwork in contemporary medical settings (Costa, 2015).

The Affordable Health Care Act's emphasis on preventive health has created additional impetus for OT practitioners to explore nontraditional practice areas (Braveman, 2015). In the

United States, there is a growing shift to community-based preventive health to reduce the costs associated with hospitalizations and supportive care (Gawande, 2011). Despite the changes in health service delivery models, students favor clinical placements in traditional settings over fieldwork opportunities in community-based practice (Heine & Bennett, 2003). Students often consider nontraditional fieldwork experiences in the community as watered-down experiences lacking academic rigor (Overton, Clark, & Thomas, 2009).

Problem of Practice

Since the early 1970s, the OT profession in the United States has reported numerous shortages in the number of practitioners (Brachtesende, 2005). In recent years, ACOTE (2017) has approved several new academic programs to address the demand for practitioners in underserved communities. Over the past decade, ACOTE (2017) has reported an 880% increase in the number of doctoral programs and a 111% growth among associate level academic programs in OT. This exponential growth in the number of OT education programs has led to professional issues such as lack of qualified faculty (Brown, Crabtree, Mu, & Wells, 2015), an increasingly competitive job market, and shortages in the availability of field placements (Roberts, Evenson, Kaldenberg, Barnes, & Ozelie, 2015). A nationwide survey of fieldwork educators reported a 21% decline in the number of fieldwork educators available per student enrolled in the profession (Roberts et al., 2015). Occupational therapy practitioners in traditional settings have reported several concerns including high allostatic load, time constraints, lack of resources, and unprecedented rise in work productivity standards—all of which deter practitioners from training students at the workplace (Brayford, Buscarini, Dunbar, Frank, Nguyen, & Fisher, 2003; Davies, Hanna, & Cott, 2011). The time and resources available to practitioners to supervise students influence the quality of the fieldwork experience (Hanson, 2011b). The problem of practice unravels the scarce human capital and limited resources in OT

fieldwork, including the perceived quality of experiential learning opportunities in the profession.

Needs Assessment

The intent of the needs assessment was to identify potential gaps in fieldwork educator agency and readiness to train students at the workplace. During the spring term of 2017, a needs assessment study was designed to compare faculty perceptions of fieldwork educator competencies in role-emerging sites and traditional practice settings. The needs assessment included several constructs including fieldwork educator skills in areas of professional practice, education, supervision, evaluation, and administration. Occupational therapy faculty from several schools ($N = 17$) provided data for the analysis. The results of the needs assessment revealed that fieldwork educators were perceived to have superior professional practice competencies in traditional medical facilities as compared to those in role-emerging practice. On the other hand, fieldwork educators in nontraditional settings were more prone to designing practical experiences that require creativity and collaboration. The learning context may have potentially influenced faculty perceptions of the instructional quality in workplace settings (Merriam & Bierema, 2014).

Theoretical Framework

Social, political, economic, and environmental factors have historically influenced professional training in health education (Moore et al., 2003; Mu, Royeen, Paschal, & Zardetto-Smith, 2002). The situated learning theory posits that effective learning is contingent upon the demands of the learning activity, the environment, and the culture in which learning occurs (Lave & Wenger, 1991). Professional learning in OT involves dynamic, interactive, and reflective experiences shared between students and educators within a social context (Rohlwing & Spelman, 2014). The multidisciplinary nature of OT practice supports opportunities for

students, faculty, and patients to interact within learning communities (Baird, Prast, Hoppe, Zapletal, Herge, & Van Oss, 2018). Interprofessional collaboration between students and practitioners from multiple disciplines can enrich team-based learning (Falzarano, 2010). Ongoing collaboration among professional groups can positively influence the learner's mastery of content knowledge and improve their practice skills. Situated learning promotes education as a process of "legitimate peripheral participation" that involves active collaboration between novice and experts in a social context (Lave & Wenger, 1991, p. 40). As novice members turn into experts, their role becomes central to the learning community.

Synthesis of Relevant Literature

Simulation-based training has shown promising outcomes in OT education (Bennett, Rodger, Fitzgerald, & Gibson, 2017). Due to high workload and productivity demands in medical settings, students may have limited time to think critically and perform the required clinical tasks safely (Roberts et al., 2015). Engaging students in deliberate practice in safe environments can help transfer knowledge to novel settings (Bethea, Castillo, & Harvison, 2014). Students report less anxiety and improved self-confidence with simulated practice before transitioning to conventional medical settings for advanced training (Nehring & Lashley, 2010). Simulated experiences can promote student-centered learning and improve competence by providing a sense of psychological safety.

High-fidelity simulation programs provide faculty with the opportunity to integrate concepts of drama, theater, and the arts during training (Nehring & Lashley, 2010). Experimental studies in simulation education have demonstrated statistically significant gains in student critical thinking, clinical reasoning abilities, communication, and clinical judgment (Bennett et al., 2017). Receiving immediate feedback during simulation training can promote metacognitive abilities and critical self-reflection among students (Smith & Lammers, 2014). Advanced

improvisation can help students retain practical techniques that are often based on sound theoretical principles (Cardoza, 2011; Hardiman, Rinne, & Yarmolinskaya, 2014). Despite its advantages, simulation cannot entirely substitute the value of hands-on training with real-life patients (Bennett et al., 2017). Students may gain valuable experience related to program development and strategic planning during fieldwork in community-based or role-emerging settings (Costa, 2015). Training in emerging practice allows students to gain a deeper understanding about health disparities and issues surrounding the social determinants of health (Gawande, 2011).

Purpose of the Study

It is important to provide adult learners with strategic choice for selecting learning activities that best fit their needs and contexts (Merriam & Bierema, 2014). Due to limited resources and personnel shortages in OT education, opportunities for differentiated learning are increasingly scarce (Roberts et al., 2015). Academic programs may develop creative field experiences in role-emerging practice areas or design simulation-based activities to provide differentiated instruction and choice-based learning (Bethea, Castillo, & Harvison, 2014). Simulation-based education typically involves use of mannequins, simulators, or standardized patients for immersive experiences. A standardized patient (SP) is an actor who is trained to portray the role of a patient with one or more medical conditions in a consistent manner (Bethea et al., 2014). SP programs can foster essential, job-embedded professional training in health professions (see Figure 1). Collaboration between various stakeholders including students, SPs, fieldwork educators, and faculty can help design effective clerkships. Students must be considered as active stakeholders to evaluate the effectiveness of experiential learning (Baird et al., 2018). This study employs a mixed methods design to compare stakeholder perceptions about fieldwork training in traditional facilities, role-emerging settings, and SP programs.

Figure 1. Students helping a standardized patient walk during a training. From "Avkin: Health Care Simulation" by A. Cowperthwait & M. Weldon, 2018 (https://avkin.com/). Copyright 2018 by M. Weldon. Reprinted with permission.

Research Questions

The investigation included both process and outcome evaluation questions:

Process Evaluation Research Questions:

RQ1. To what extent were each of the fieldwork program elements implemented as planned in traditional, role-emerging, and simulated settings?

RQ2. What are the students' perceptions of design elements of fieldwork experiences in traditional, role-emerging, and simulated settings?

RQ3. What are the students' perceptions of educational practices during fieldwork in traditional, role-emerging, and simulated settings?

RQ4. How do stakeholders such as faculty, fieldwork educators, and potential employers perceive student fieldwork experiences in traditional, role-emerging, and simulated settings?

Outcome Evaluation Research Questions:

RQ5. How do students perceive their satisfaction with learning during fieldwork experiences in traditional, role-emerging, and simulated settings?

RQ6. How do students perceive their self-confidence with learning during fieldwork experiences in traditional, role-emerging, and simulated settings?

Research Design

The investigation used a convergent, parallel mixed methods approach (Creswell & Plano Clark, 2011) to compare stakeholder perspectives about experiential learning in: (a) a university-based SP program; (b) traditional field placements; and (c) role-emerging settings.

The study compared students in a control group (i.e., traditional fieldwork) with two experimental conditions (i.e., role-emerging fieldwork and SP training). The quantitative phase of the study involved a repeated measures design with the same set of student participants who underwent training in the different contexts. The process evaluation focused on indicators related to the fidelity of implementation, context and participant responsiveness, and barriers to program implementation (Creswell & Plano Clark, 2011). These indicators were measured by the level of stakeholder participation, the extent of the program delivered, and perceptions of stakeholders toward the trainings. Faculty, fieldwork educators, and potential employers were interviewed during the qualitative phase to further analyze the data obtained from students. Although fieldwork educators and employers did not have direct, first-hand experience with SP training, their perceptions about available clerkships in different contexts may influence student confidence and satisfaction with learning. Combining the qualitative and quantitative data sets

yielded diverse viewpoints on how differences in learning contexts can potentially influence student learning outcomes. The outcome evaluation focused on student satisfaction and self-confidence with the learning experiences.

Method

Twenty-seven student participants (*n* = 27*)* from AdventHealth University's occupational therapy assistant program were selected for the quantitative phase of the investigation using criterion sampling. The student participants had each completed experiential training in an SP program, traditional placement, and role-emerging fieldwork during the Fall 2019 term. The participants completed surveys about the learning design, educational practices, and rated their perceived satisfaction and self-confidence with the training activities. The Simulation Design Scale, Educational Practices Questionnaire, and Student Satisfaction and Self-Confidence in Learning Scale obtained from the National League for Nursing (NLN, 2005) were adapted with permission for the surveys. During the qualitative strand of the investigation, semi-structured interviews were conducted with program faculty, fieldwork educators and potential employers (*n = 6)*. The interviews focused on non-student stakeholder perspectives about Level I training opportunities available for knowledge integration. The quantitative data were analyzed using the non-parametric Friedman test and the Wilcoxon signed rank test in SPSS. The researcher generated codes and themes from the qualitative data using the thematic analysis framework (Braun & Clarke, 2006) and a saliency matrix (Buetow, 2010). The quantitative and qualitative findings were merged for greater understanding of the problem and its implications on future practice.

Outcomes and Implications for Practice

The student participants reported that simulated learning with SPs provided additional opportunities for independent problem-solving. The program faculty were more likely to

personalize the training and develop collaborative learning experiences in nontraditional field settings. Fieldwork activities in role-emerging settings were perceived to be more diverse than those encountered in contemporary settings or simulation. Faculty, fieldwork educators, and potential employers viewed SP programs as a valuable substitute for traditional clinical experiences (Parker, McNeill, & Howard, 2015). A well-designed SP program can help students acquire skills required for entry-level positions and advanced training in occupational therapy. According to Kise (2014), despite the limitations of simulated learning, integrating the benefits of simulation with nontraditional fieldwork can create a virtuous cycle for maximizing human, fiscal, and academic resources available in experiential education. Instead of holding polemical views about training methods in traditional, role-emerging, and simulated settings, schools can attempt to leverage the advantages of each approach and identify best practices in fieldwork training (Kise, 2014). Although innovative approaches can be utilized for personalizing the educational experiences, the quality of the learning experience is contingent upon several factors including resource availability, contextual demands, instructional quality, and student mastery (Nehring & Lashley, 2010).

Chapter 1

Understanding the Problem of Practice

Occupational therapy (OT) is an allied health profession. During the past century, OT has evolved as a profession that addresses the occupational needs of the population. Occupation is defined as "all that people need, want, or are obliged to do, what it means to them, and its ever-present potential as an agent of health and an agent of change" (Wilcock & Hocking, 2014, p. 138). The nature of occupation is diverse, fluid, and may vary based on factors including age, gender, sexual orientation, culture, race, and ethnicity (Sladyk & Ryan, 2015). Occupational therapy practitioners require a broad repertoire of skills such as creative thinking, problem-solving, and cultural competency to mitigate occupational deprivation in their clients (Graham, 1983). The practitioners participate in multidisciplinary rehabilitation teams to help their clients restore or modify skills for independent living (Ernst & Moore, 2013). Occupational therapy practitioners work in diverse practice areas such as gerontology, pediatrics, mental health, and physical disabilities to maximize functional independence in persons with disabilities (Pendleton & Schultz-Krohn, 2017). The Americans with Disabilities Act (ADA, 1990) defines a person with a disability as having "a physical or mental impairment that substantially limits one or more major life activities" (para. 5).

The OT workforce includes qualified practitioners with two distinct credentials: the registered occupational therapist and occupational therapy assistant. The occupational therapy assistant works under the supervision of the registered occupational therapist (American Occupational Therapy Association [AOTA], 2018a). Practitioners at both levels provide essential rehabilitation services to support life skills and promote highest functional performance in individuals with disabilities (AOTA, 2018a). These practitioners provide direct interventions, consultation, and advocacy-based services for their patients to promote health, reduce co-

morbidities, and prevent the onset of excess disability (Pendleton & Schultz-Krohn, 2017). The practitioners are trained in colleges and universities that offer academic programs at various educational levels. Students can choose from the associate, baccalaureate, master, or doctoral degrees to enter the OT profession (Accreditation Council for Occupational Therapy Education [ACOTE], 2019). Presently, a master's or a doctoral degree in OT is the minimum entry-level requirement to practice as an occupational therapist (AOTA, 2015b). Occupational therapy assistant practitioners, on the other hand, must have at least an entry-level associate degree in OT from a technical school or a community college (AOTA, 2015b).

Experiential learning is an integral component of every entry-level OT education program (Costa, 2015). According to ACOTE (2012), experiential learning, also known as fieldwork, typically involves formal workplace training in traditional medical facilities. The following terms—experiential education, fieldwork, clinical training, workplace learning, internships, apprenticeships, and clerkships—all pertain to professional learning in health professions. Traditional fieldwork experiences in OT involve direct student interaction with patients and practitioners in medical settings such as rehabilitation centers, outpatient clinics, inpatient facilities, and hospitals under the supervision of a qualified fieldwork educator (Shalik, 1990). A fieldwork educator is a designated practitioner who supervises students during their professional training (ACOTE, 2012). Due to limited resources and educator shortages in conventional medical settings, students may have little choice but to undergo training in emerging practice areas where the formal role of OT is yet to be established (Overton et al., 2009). Fieldwork in role-emerging settings typically includes experiential learning in nontraditional settings such as community-based outreach agencies, homeless shelters, juvenile detention facilities, and independent living resource centers where an OT practitioner is not typically employed (Hanson, 2011b). In OT education, the terms community-based settings,

nontraditional sites, and role-emerging areas are used interchangeably to denote OT practice in atypical environments. Students are expected to integrate complex subject matter and translate theoretical constructs into practice during fieldwork in both traditional and role-emerging practice settings (Costa, 2015).

Experiential learning in OT includes two distinct training levels: (a) the preliminary Level I fieldwork and (b) the final Level II fieldwork experiences (ACOTE, 2012). Level I fieldwork consists of a set of basic apprenticeships that introduce students to patient care techniques while they complete didactic courses concurrently (AOTA, 2021). Students learn basic communication techniques, professionalism, patient handling skills, and are expected to apply introductory knowledge in practice during Level I fieldwork (ACOTE, 2012). Depending upon the curriculum design, each student may complete Level I fieldwork in at least three or four different sites. In addition, the student may be expected to mostly observe patient-practitioner interactions during Level I fieldwork training (AOTA, 2021). Upon completion of the didactic curriculum and Level I fieldwork, the students typically progress to Level II fieldwork for the final phase of their academic training (Costa, 2015). Level II fieldwork involves student immersion in full-time clinical experiences that support job-embedded professional training and skill acquisition for entry-level OT practice (ACOTE, 2012). During Level II fieldwork, students typically engage in one or two semester-long clerkships to develop entry-level competencies as generalists in the profession (Costa, 2015). A minimum of 24 weeks of Level II fieldwork is required for the master's level trained OT student (ACOTE, 2018). Level II fieldwork for the OT assistant student is typically 16 weeks in duration (ACOTE, 2018). Students typically complete Level II fieldwork experiences in at least two or three distinctly different settings that are reflective of current OT practice (Costa, 2015). It is important to note that there is no evidence to support the duration of experiential learning in OT education (AOTA, 2017).

Over the last few decades, OT practice trends have shifted from the traditional medical model to community-based rehabilitation (Braveman, 2015). Due to rising costs of medical care and declining reimbursement, practitioners are turning to preventive models of service (Institute of Medicine, 2010). The Patient Protection and Affordable Care Act (2010), commonly known as Obamacare, and the Institute of Health Care Improvement support essential primary care and preventive services that are likely to improve the health and well-being of the general population. The recent shift to population health and preventive medicine has created a need for rehabilitative and ancillary services in community-based settings (Hanson, 2011b). Occupational therapy practitioners can serve as private consultants and provide interventions in role-emerging practice areas contingent upon factors such as complexity of the client, severity and rate of disease progression, and available resources (Sladyk & Ryan, 2015). The accreditation standards (ACOTE, 2018) recommend that students must complete fieldwork in diverse settings, including nontraditional practice settings during their Level I and II assignments. Training in both traditional and community-based facilities can prove beneficial in producing entry-level practitioners who are prepared to serve in diverse settings not limited to the medical model (Overton et al., 2009).

The accreditation standards (ACOTE, 2018) require a minimum of eight hours of direct contact between students and OT practitioners in nontraditional environments during Level II fieldwork. The student is often supervised by a non-OT practitioner during the remainder of the fieldwork. There is no direct OT supervision requirement for Level I fieldwork (AOTA, 2021). Besides the OT practitioner, other health care providers such as a nurse, vocational counselor, low vision rehabilitation teacher, or health care administrator can serve as a fieldwork educator for students in nontraditional settings (Costa, 2015). Fieldwork training across a diverse range of

settings can be valuable in promoting interdisciplinary collaboration with special emphasis on cost containment and innovation in complex health care environments.

Problem of Practice

Since the early 1970s, the OT profession in the United States has reported numerous shortages in the number of practitioners (Brachtesende, 2005). In recent years, ACOTE (2017) has approved several new academic programs to address the demand for practitioners in underserved communities. Over the past decade, ACOTE (2017) has reported an 880% increase in the number of doctoral programs and a 111% growth among associate level academic programs in OT. This exponential growth in the number of OT education programs has led to professional issues such as lack of qualified faculty and critical shortages in the availability of fieldwork placements (Brown, Crabtree, Mu, & Wells, 2015; Evenson, Roberts, Kaldenberg, Barnes, & Ozelie, 2015). A nationwide survey of fieldwork educators reported a 21% decline in the number of fieldwork educators available per student enrolled in the profession (Evenson et al., 2015). Occupational therapy practitioners in traditional settings have reported several concerns involving work-related stress, time constraints, lack of resources, and unprecedented rise in practitioner productivity standards which deter practitioners from training students (Brayford et al., 2003; Davies, Hanna, & Cott, 2011). The time and resources available to practitioners to supervise students often influence the quality of the fieldwork training (Hanson, 2011a). Despite the projected changes in health service delivery, most students favor clinical placements in traditional medical settings over fieldwork opportunities in community-based practice (Heine & Bennett, 2003). The students tend to consider learning in nontraditional environments to be watered-down experiences that lack academic rigor (Overton et al., 2009). The problem of practice pertains to the scarce human capital and limited resources in OT fieldwork that can create negative perceptions about innovative experiential learning

opportunities in the profession. It is therefore important to examine stakeholder perceptions of available training opportunities in occupational therapy fieldwork for continuous improvement in workplace learning.

Theoretical Framework

The ecological systems theory (Bronfrenbrenner, 1994) systematically explores broad factors such as health care reimbursement, trends in student enrollment, and the sociopolitical climate that contribute to the problem of practice. The theory promotes deeper understanding of the problem using a systems approach. The nested model of the ecological systems theory includes five primary systems: the chrono-, macro-, exo-, meso-, and microsystems. These systems are housed inside each other like a set of Russian dolls (see Figure 1.1). The systems are individually examined as a subset of the broader contextual phenomena that have created the problem (Bronfrenbrenner, 1979). The chronosystem is associated with historical events, emerging practice trends, and development of social milieus in the OT profession over time. The macrosystem involves cultural factors, societal beliefs, and ideologies that influence practice in the health professions (Neal & Neal, 2013). The exosystem encompasses panoply of positions including school-community partnerships that are guided by factors such as policy, legislation, funding, and social outreach. The mesosystem entails student interaction with stakeholders in distinct learning environments (Neal & Neal, 2013), including faculty members that correspond with fieldwork educators and patients within fieldwork settings. Internal factors such as student characteristics, attitudes, and beliefs about experiential learning constitute the microsystem (Bronfrenbrenner, 1979). The student—as the primary stakeholder in the learning process—is depicted in the center of the model (see Figure 1.1).

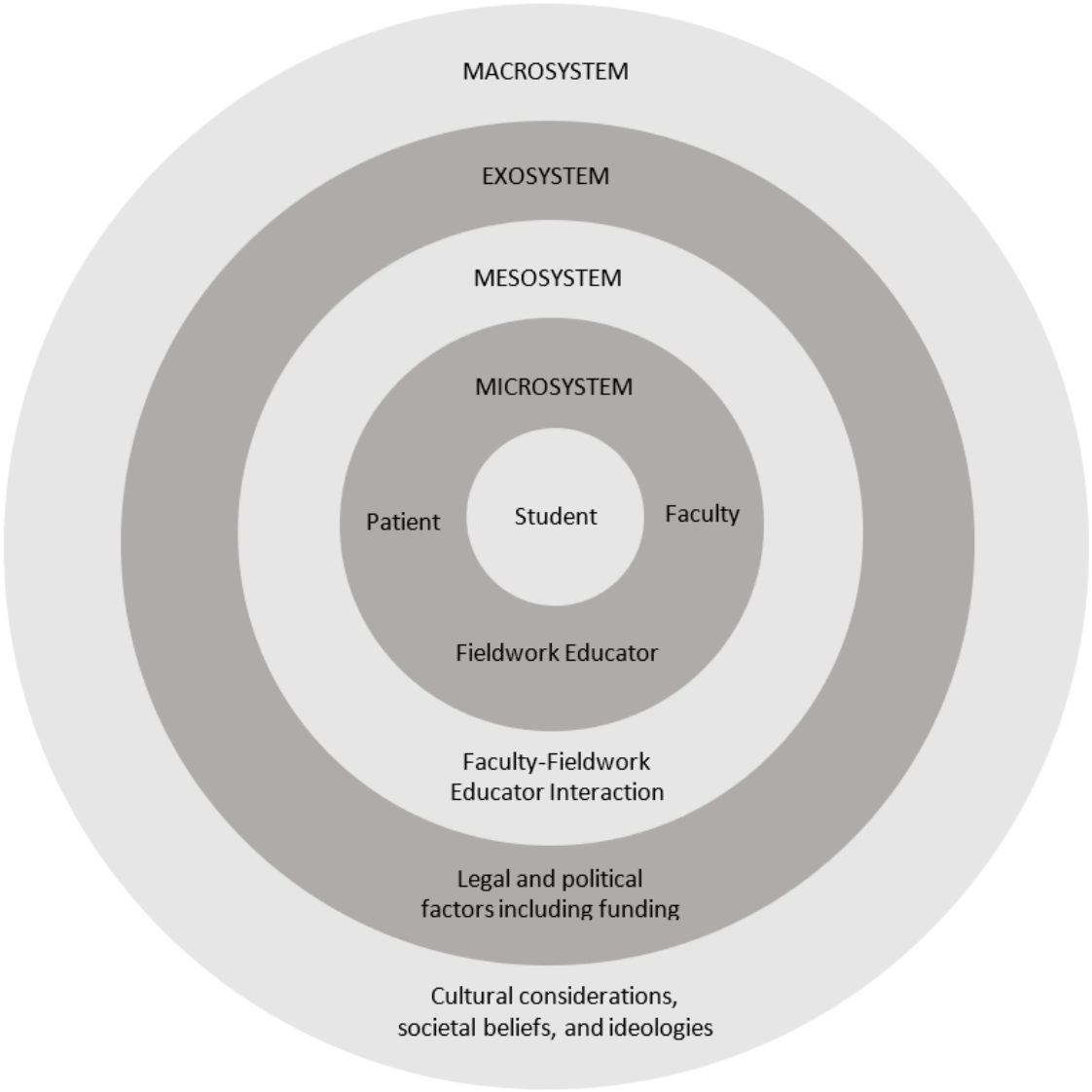

Figure 1.1. Nested model of ecological systems. Adapted from *The Ecology of Human Development by Nature and Design* (pp. 16–45) by U. Bronfenbrenner, 1979, Cambridge, MA: Harvard University Press. Copyright 1979 by Harvard University Press.

Review of Literature

Factors such as income potential, job availability, and career prospects have historically influenced student selection of OT as a career (Craik, Gissane, Douthwaite, & Philp, 2001). Students view OT as a helping profession with a favorable reputation among allied health professions (Rozier, Gilkeson, & Hamilton, 1992). Students may pursue OT as a career as they

desire to serve in the capacity of a health professional. There is currently a surge in the demand for OT schools in the United States (Harvison, 2018). The resulting shortage of qualified educators and scarce fieldwork placements is further explored using the ecological systems model (Bronfrenbrenner, 1979).

Chronosystem

The OT profession was founded in 1917 out of the moral treatment movement in the United States. The moral treatment created opportunities for deinstitutionalizing custodial care and promoted fair treatment of individuals with mental health disabilities (Howard, 1991). Due to the growing number of wounded veterans returning from the First World War, OT practitioners started treating physical disabilities in the United States (Sladyk & Ryan, 2015). The demand for skilled occupational nurses, therapy practitioners, and rehabilitation aides grew globally during the decades following the world wars (Pendleton & Schultz-Krohn, 2017). Although the OT profession was established to serve the mental health needs of the communities at large, by the early 1970s, OT had aligned itself to the medical model promulgated by the American Medical Association (Fidler, 2000). Emergence of the medical model created increased job opportunities for practitioners. Occupational therapy services were no longer limited to treating wounded veterans or patients with mental health conditions (Sladyk & Ryan, 2015). With the growing demand for rehabilitative services in hospitals and rehabilitation centers, the profession experienced shortages in the number of practitioners for several decades (Pendleton & Schultz-Krohn, 2017). This trend lasted until the late 1990s when cost containment efforts spearheaded by managed care companies and the Balanced Budget Act of 1997 caused a sharp decline in the demand for OT practitioners (Fisher & Cooksey, 2002). Practitioners were laid off in skilled nursing facilities and long-term care centers, leading to a downward spiral in OT employment. As a result, student enrollment in OT schools across the United States hit an

all-time low during the late 1990s and early 2000s (Brachtesende, 2005). As Howard (1991) observed, "the profession…altered its definition, practice, management, ethics, and professional response as a result of changes in reimbursement" (p. 875). By the mid-2000s, the allied health industry started to recover gradually from the initial shock of the Balanced Budget (Brachtesende, 2005). The U.S. Congress passed the Individuals with Disabilities Education Act (IDEA, 2004) that mandated special education and related services for children with disabilities ages 3 to 21. Student enrollment has been on the upswing since the mid-2000s (Brachtesende, 2005) and has turned into one of the leading causes of the problem of practice.

Macrosystem

Several professions have struggled with higher degree of external scrutiny from regulatory agencies and a decline in public trust since the 1960s (Mehta, 2014). The Balanced Budget Act of 1997, in particular, launched the Prospective Payment System that negatively impacted the reimbursement of OT and other allied health services (Brayford et al., 2003). Due to shorter length of hospital stays, practitioners were expected to have larger patient caseloads to compensate for the lost revenue (Hanson, 2011a). This new payment system led to widespread ethical issues in allied health practice. Practitioners struggled with competing demands and corporate pressures to alter therapeutic recommendations based on the approval of third-party insurance (Slater, 2006). These trends lasted for over a decade, contributing to long-standing concerns that some allied health practitioners may be forced to compromise ethical conduct and relinquish professional autonomy to survive in the medical model (Brollier, Bender, Cyranowski, & Moseley, 1986).

Managed care companies produced several challenges in OT service delivery (Sladyk & Ryan, 2015). Since the early 1980s, cost containment measures were aimed to improve the inefficiencies in the health care system (Howard, 1991). Third-party payers frequently

challenged professional recommendations and practitioner judgment related to the provision of skilled services (Lopez, Vanner, Cowan, Samuel, & Shepherd, 2008). These ethical issues combined with increased administrative responsibilities contributed to rising incidence of practitioner burnout in traditional medical settings (Evans & Porche, 2005; Lew, Cara, & Richardson, 2007; Ofri, 2019), which further contributed to the exacerbation of the problem of practice (Evenson et al., 2015). Allied health practitioners have reported increased frustration when dealing with private insurance agencies (Slater, 2006). The WHO (2019) recently acknowledged burnout as an occupational phenomenon resulting for chronic work-related stress. Burnout can also be precipitated by financial hardships experienced by health care practitioners due to the rising cost of health education programs (Craft & Craft, 2012; Rueb & Zraick, 2019) and the intense pressure of succeeding in the current environment. As Howard (1991) observed,

> In our society, individualism and private enterprise are valued. With cost containment, the prevailing values in health care become clearer: Technology and the scientific method are valued more than the holistic use of a variety of treatment methods; the young and productive are valued more than the old and frail; and acute treatment is valued more than chronic care (Waitzkin, 1987). Reimbursement within a system that embraces these values shapes the practice of occupational therapy. What our profession valued at its inception contrasts with the values of the current health care system; the tension between societal values and the values of the profession continues to be a source of conflict for many clinicians. (p. 880)

The centennial vision for OT described the field as "a powerful, widely recognized, science-driven, and evidence-based profession with a globally connected and diverse workforce meeting society's occupational needs" (AOTA, 2007, p. 613). The OT workforce culture is largely dominated by western, middle-class, female, and heterosexual perspectives (Trentham,

Cockburn, Cameron, & Iwama, 2007). Rapid industrialization and economic growth of the 20th century facilitated these archetypes as the foundational culture of the profession (Dos Santos & Spesny, 2016). Male therapists and minorities continue to be underrepresented in the profession. With less than 15% of practitioners identifying themselves as male (AOTA, 2015a), the OT workforce is far less diverse than the communities it serves. There is potential to turn around this diversity crisis in the profession with the existing growth in number of students and practitioners. As the baby boomer generation nears retirement, there is a conscious effort by the OT academic leadership to increase the diversity of faculty in the profession (AOTA, 2015a). A diverse student population is vital for culturally responsive practice in health professions (Odawara, 2005). Enrolling minority students, however, may be complicated as the costs of OT education have spiraled out of control in recent years (Brown et al., 2015). With threats of reduced therapy coverage and practitioner reimbursement looming (AOTA, 2018b), it may be rather challenging for the profession to attract minority students.

The Patient Protection and Affordable Care Act of 2010 dramatically altered the health care environment in the United States (Fisher & Friesema, 2014). Millions of Americans qualified and accessed health care insurance under the provisions made by the Affordable Care Act. The act introduced a pay-for-performance model where reimbursement for allied health services was bundled into a flat fee based on the quality of services. According to Warrington and Brunkow (2011), bundled payment involved reimbursing health care providers through "a predetermined lump sum payment system" for the services provided (para. 3). This valued-added system included reimbursement for services provided in primary care, preventive health, and wellness models of care (Braveman, 2015). The Affordable Care Act strongly discouraged volume-based practices in the industry that have traditionally yielded good profit margins for managed care corporations (Sandhu, 2015). Citing rising health care costs and high insurance

premiums, models such as bundled payment were introduced for effective resource utilization (Warrington & Brunkow, 2011).

However, the recent political environment in the United States has created uncertainty about the future of the Affordable Care Act, and a heightened sense of anxiety among health care providers and students (Barbe, 2017; Southern Poverty Law Center, 2016). The Trump administration proposed the Better Care Reconciliation Act, which threatened the provision of mandatory pediatric therapy services, and placed the Medicaid's Early and Periodic Screening, Diagnostic, and Treatment program at risk for cuts (Parsons, 2017). The Early and Periodic Screening, Diagnostic, and Treatment provides comprehensive health, rehabilitation, and education benefits to children across the United States (Snowden, Masland, Wallace, Fawley-King, & Cuellar, 2008). Health services that provide special education under the Individuals with Disabilities Education Act are at risk for being eliminated. Although the Better Care Reconciliation Act did not go into effect (Bresnick, 2017), similar legislation in the forthcoming years will negatively impact mental health and community-based services available to senior adults and homeless individuals in the United States (Parsons, 2017).

In the near future, proposed plans to restructure Medicaid could likely reduce funding and coverage of habilitative and rehabilitative services for the general population (Barbe, 2017). The proposed cuts to the Medicaid program proposed under the Better Care Reconciliation Act of 2017 came with a warning that millions of individuals, including children with disabilities that currently receive rehabilitative services, are increasingly at risk of losing their health benefits (Parsons, 2017). With the threats for budget cuts and therapy caps looming in medical settings, practitioners are reporting numerous issues including increased work-related stress (Ofri, 2019) and early onset of compassion fatigue (Klass, 2017) due to time constraints, lack of essential resources, and unprecedented rise in productivity standards at the workplace (Evenson et al.,

2015). These professional issues may negatively impact the ability of OT practitioners to serve as fieldwork educators (AOTA, 2018b).

There are growing industry wide concerns about reduced employment and salary cuts for OT practitioners when the transition from fee-for-service payment to risk-based reimbursement occurs (Bouchard, 2011). Although the Affordable Care Act granted millions of Americans access to essential health services and increased the demand for qualified health professionals (Wishner & Burton, 2017), projected reductions in reimbursement revenue are creating valid concerns about job loss, unemployment, or underemployment among practitioners (AOTA, 2018b; Barbe, 2017). The change from a fee-for-service payment to value-based reimbursement may influence future trends in OT funding (Bouchard, 2011). These reimbursement-related issues will likely affect the quality of experiential learning in the profession, including student selection of OT as a career choice (Brayford et al., 2003).

Exosystem

The introduction of the Affordable Care Act and its emphasis on primary care, interprofessional education, and specialty areas served as an impetus to add more curricular content in health programs (Institute of Medicine, 2010). Citing rising patient complexity and need for advanced credentials, OT along with most health professions including nursing and physical therapy have raised the minimum educational requirements for entry-level practice (Apold, 2008; Brown et al., 2015; Johanson, 2005). There has been a considerable debate within the profession to raise the degree level requirements for both the OT and OT assistant students (AOTA, 2015b). Until 2007, a bachelor's degree in the field was the minimum qualification required to earn the credentials of the occupational therapist (Brown et al., 2015). At present, an entry-level master’s is the minimum qualification required to practice as an occupational therapist in the United States (ACOTE, 2019). Some programs have started to offer entry-level

clinical doctoral degrees in OT (Harvison, 2018). Mirroring the growth in the educational level of occupational therapists, OT assistants will have a choice to pursue a baccalaureate degree in the profession in lieu of training at the associate level (ACOTE, 2019). As a result, students may opt to enter the workforce with either an associate, bachelor's, master's, or doctoral entry-level degree. With these four points of entry, the OT workforce is at increased risk of becoming divided (Brown et al., 2015). There is anecdotal evidence that practitioners with an entry-level master's degree may have fewer opportunities for career advancement as compared to those with the clinical doctorate (Smith, 2007). The incidence of degree inflation may magnify the rate of practitioner burnout and employee turnover, which in turn could further exacerbate the availability of experienced fieldwork educators in the OT profession (AOTA, 2019a; Brown et al., 2015).

A report published by the Departments of Treasury and Education (2012) suggests that the national issue surrounding the rising costs of education and growing student debt have produced a shift in higher education enrollment. The report indicated a significant rise in the number of students enrolled both full time and part time in two-year college programs in public and for-profit institutions. According to a survey conducted by Georgetown University Center for Education and Workforce in 2015, nearly 30% of Americans with an associate degree reported higher earnings compared to those with bachelor's level training (Marcus, 2013). The OT profession has similarly witnessed a surge in the number of students applying to train as OT assistants at community and technical colleges across the nation (Harvison, 2011). This growth in student numbers has led to the widespread expansion of schools offering programs in allied health (Evenson et al., 2015; Hayden, Smiley, Alexander, Kardon-Edgren, & Jeffries, 2014). According to Williamson, Brooks, and Ross (2015), "diploma mills have also been able to proliferate in this newly realized and ever-expanding academic market" (p. 188). The current

political administration in the United States has little intention to regulate the rise in the number of for-profit schools (Cottom, 2017; Green & Cowley, 2019; Kamenetz, 2017).

Supervising students during fieldwork is a form of professional contribution. In the past, a vast number of clinical educators in health professions were not reimbursed to supervise students during experiential training (Brown, 2016; Glavaz, Alexander, Curtis, & Eskes, 2014; Mangan, 2010; Physician Assistant Education Association, n.d.). Paying practitioners for mentoring students can add to the overall cost of education and further escalate student debt that may jeopardize student diversity in the profession (Brown et al., 2015). As fieldwork opportunities dwindle, OT schools may have to explore the option of remunerating practitioners for student supervision. With this in mind, some academic institutions are developing creative training models in community-based settings to manage the placement shortages. However, only two percent of the OT workforce is employed in these role-emerging settings (AOTA, 2015a). The small number of OT practitioners in nontraditional settings is likely due to low reimbursement and widening gaps in the nation's health care programs (Howard, 1991; Whitehead, 2019). Occupational therapy faculty therefore assume student supervisory responsibilities in role-emerging placements with assistance from other practitioners and staff in community-based settings.

Students may have the option to pursue fieldwork in different parts of the country. For instance, OT schools in the northeastern United States are located near neighboring state lines. Due to geographical factors and high population density, a majority of students in the northeastern United States often pursue out-of-state fieldwork assignments (Hall, 2013). In 2010, the U.S. Department of Education created the National Council for State Authorization Reciprocity Agreements to regulate post-secondary distance education (Williamson et al., 2015). As out-of-state fieldwork is a component of distance learning, this new legislation has imposed

restrictions on schools from providing placements across state lines, further complicating the process of acquiring sites (Williamson et al., 2015). School administrators and the board of trustees might approve fieldwork affiliation agreements for placements in foreign countries (Costa, 2015), but international internships may not be financially viable for all students.

Mesosystem

Academic fieldwork coordinators represent academic institutions in OT practice settings (Costa, 2015). The OT fieldwork coordinator serves as a liaison between the school and the clinical setting to develop workplace learning programs. These programs must include a coherent curriculum, objectives, and learning activities that are reflective of entry-level OT practice (Costa, 2015). Ongoing collaboration between the academic institution and fieldwork educators facilitate the development of entry-level competencies required for successful transition to practice settings (Hatkevich & Miller, 2009). Fieldwork coordinators routinely follow up with fieldwork educators to evaluate student performance via on-site visits, phone conferences, and virtual meetings including videoconferencing (Hall, 2013). The interactions between academic institution and the clinical site are instrumental in helping students establish links between discipline-specific knowledge and practice.

Student interaction within the academic institution. Students view OT as a discipline that provides challenging opportunities to work with individuals with disabilities (Craik et al., 2001). Initial student interaction with academic program constitutes a process of identity formation as a health care practitioner. The process of identity formation is typically affective and helps students transform their personal values, beliefs, and attitudes, and imbibe the ethos of the profession (Hooper, 2008). Factors such as emotional intelligence, resilience, attitudes toward aging, and knowledge of current practice significantly influence student expectations in the field (Andonian, 2013; Horowitz, Tagliarino, & Look, 2014; Mitchell, 2015). Students

typically consult with faculty members to consider their options about the fieldwork locations, travel involved, and associated costs (Costa, 2015; Johanson, 2007). Job availability and future career prospects may also influence students' decision to pursue fieldwork at certain sites, especially in renowned hospital systems (Rozier et al.,1992). Students from minority backgrounds and those with disabilities may need additional consultation and planning for fieldwork site selection (Gamoran & Long, 2006; Velde, Chapin, & Wittman, 2005).

Student interaction at the fieldwork site. Students frequently interact with their designated fieldwork educator during workplace training (Hanson, 2011b). Conventional training in OT expects fieldwork educators to engage in direct student supervision and role modeling (Costa, 2015). The cognitive apprenticeship model, widely used in the OT profession, includes different stages of a typical internship: observation, coaching, scaffolding, modeling, fading, and reflection (Brown, Collins, & Duguid, 1989). Every stage of the internship is crucial to support critical thinking, problem-solving, and independent learning among students.

The multidisciplinary nature of OT practice requires students to interact with a variety of practitioners during fieldwork. Students have opportunities to learn from managers, physical therapists, speech pathologists, nurses, teachers, special educators, and physicians during their training (Falzarano, 2010). Experiential learning is described as learning by doing (Schaber, 2014). A positive environment with an organizational culture that values continuous professional learning and process improvement sets the stage for effective workplace training (Housel, Gandy, & Edmondson, 2010). Fieldwork educators should not only possess skills in fieldwork supervision and evaluation, but also champion a culture of lifelong learning (Koski, Simon, & Dooley, 2013). Designing student-centered training includes procedures such as a formal orientation, routine evaluation, and timely feedback that are essential to continually improve the quality of the learning experience (Hanson & Graves, 2016).

Federal legislation including the Health Care Insurance Portability and Accountability Act of 1996, Americans with Disabilities Act of 1990, and the Family and Educational Rights and Privacy Act of 1974 apply to experiential training in all health professions (Costa, 2015). The AOTA Commission on Education recommends that fieldwork educators must be given sufficient time to develop learning experiences in collaboration with the fieldwork coordinator (Costa, 2015). High productivity standards and chronic stress in practice settings are of great concern as they may deter educators from mentoring students, especially those with disabilities (Kornblau, 1995; Ozelie, Janow, Kreutz, Mulry, & Penkala, 2015). Fieldwork settings may be limited in providing students with disabilities with accessible physical space, infrastructure, and resources including equipment and technology required for medical charting (Hanson, 2011a). Occupational therapy faculty may select alternative fieldwork models in community-based, nontraditional practice settings since practice in those areas is not typically subjected to high productivity standards evident in conventional facilities (Gat & Ratzon, 2014; Hanson, 2011b; Howard, 1991).

Microsystem

The student is at the center of the microsystem. Student motivation is often influenced by factors such as gender, society, economic backgrounds, and other personal interests that may impact their fieldwork choice (Rozier, Thompson, Shill, & Volmar, 2001). According to Greenberg and Plotnick (2011), OT assistant students in community colleges tend to be middle-aged or older females from working-class neighborhoods pursuing second or third careers. Conversely, graduate students in OT are typically female with middle-class backgrounds (Greenberg & Plotnick, 2011). Students may lack professional skills essential for successful entry-level practice (Robinson, Tanchuk, & Sullivan, 2012). Learning professionalism through trial and error may produce feelings of frustration and emotional distress among students (Lew et

al., 2007). Students may initially experience stress and anxiety when interacting with patients (Smith & Lammers, 2014). They may be concerned that training in community-based settings may reduce the time they get to spend with patients in acute care (Overton et al., 2009). Students often get job offers from potential employers during fieldwork (Costa, 2015). Since training in nontraditional settings may not lead to the same extent of employment opportunities as conventional fieldwork, students from poor socioeconomic backgrounds may hold negative perspectives about role-emerging placements and other creative training models (Ulrich & Mancini, 2014).

The growing numbers of baby boomers in the United States have created more opportunities for fieldwork in gerontology (Kornblau, 2002). Student attitudes and predispositions about working with the elderly, especially in nursing homes and geriatric care settings, may influence their fieldwork selection (Boekeloo, Randolph, Timmons-Brown, & Wang, 2014; Palumbo, Rambur, McIntosh, & Naud, 2008; Tovin, Nelms, & Taylor, 2002). Negative experiences and misperceptions about gerontology may lead them to select fieldwork training in diverse practice areas such as pediatrics, assistive technology, or acute care (Howard, 1991). Students may not be aware that workplace training in acute care settings may limit opportunities for innovation, critical thinking, and reflective practice due to scarce availability of time and other resources (Taylor, 2014). Since fieldwork in the medical model is often associated with greater esteem and expertise (Howard, 1991), students unsurprisingly prefer training in conventional settings over opportunities in role-emerging practice (Ensign, 2012; Heine & Bennett, 2003).

According to Farrington (2014), “academic achievement for minority students often comes at a significant personal price” (p. 54). Students from impoverished neighborhoods may believe that they must work extra hard in school to lift themselves and their families out of

poverty. These students rely on the guidance provided by the faculty and fieldwork educators for success during workplace training (Costa, 2015). As the stakes to succeed are high, students from underrepresented backgrounds may perceive creative fieldwork opportunities rather negatively. Students who have experienced scarcity may view innovation with skepticism (Balfanz, 2019a). They may prefer to conform to fieldwork options in conventional settings due to fear of failure in high-stakes licensing exams (Taylor, 2014).

Summary of Factors and Underlying Causes

Occupational therapy practitioners work with individuals with disabilities in diverse fields including gerontology, pediatrics, mental health, assistive technology, and physical dysfunction. Practitioners who identify as Caucasian and female often dominate the OT workforce. Degree inflation in OT may impede efforts to improve student diversity and inclusion in the profession. A surge in the number of students and academic programs is creating educator shortages and scarce fieldwork opportunities for workplace learning. Legislative changes, unprecedented productivity demands, and declining reimbursement has led to increased incidence of practitioner burnout and high turnover in medical settings, further exacerbating educator shortages in the profession. Time constraints and work-related stress in acute care settings may consequently reduce practitioner empathy towards students, particularly those experiencing disabilities. These professional issues continue to challenge academic programs in their efforts to recruit and retain high-quality fieldwork educators.

Socioeconomic conditions can discourage OT students from training in innovative workplace environments. Students view OT as a helping profession with high likelihood of fixed work hours and good income. Students may hold negative perceptions about fieldwork opportunities in geriatric care and role-emerging practice, which may limit their selection of fieldwork sites. They may lack professionalism and patience to engage in cooperative learning

experiences with their clients and peers. Non-cognitive factors including motivation, self-regulation, and social engagement may influence the students' emotional buy-in and sensemaking capacities during fieldwork. Students may comply with training in nontraditional settings but may lack commitment towards workplace programs that support innovation, creative thinking, and risk-taking.

Academic programs should examine student perceptions and insights related to the quality of instruction in workplace training environments (Parker et al., 2015). Failure to attend to student attitudes, beliefs, and perspectives toward on-the-job training could jeopardize the success of fieldwork programs. Understanding student perspectives about experiential learning can help school leaders secure the emotional buy-in of students. Educator self-efficacy can greatly influence student agency and ownership towards learning (Clarke & Hollingsworth, 2012). Educator proficiency positively impacts student achievement in fieldwork settings (Costa, 2015). Unfortunately, novice fieldwork educators and practitioners dedicated to clinical practice may lack the pedagogical content knowledge needed to address student perceptions and attitudes towards learning (Brownell & Tanner, 2012; Shulman, 1986). These educators may fail to integrate new knowledge with appropriate learning theories (Clarke & Hollingsworth, 2002) to promote student commitment to learning and the acquisition of necessary skills and competencies. These factors provide a rationale for investigating targeted competencies in OT fieldwork educators, which holds immense potential for improving student achievement during workplace training.

Chapter 2

Empirical Examination of the Factors and Underlying Causes

This chapter presents findings from the needs assessment that examined perceived competencies of fieldwork educators in traditional and role-emerging settings. The needs assessment addressed several domains including the fieldwork educators' administrative and evaluative skills, discipline-specific competencies associated with workplace education, supervision, and professional practice, as defined by the AOTA (1997). The quality of instruction in educational contexts is garnering much attention in public discourse. With students being viewed as consumers of services, indicators such as student retention, progress, and achievement in standardized tests and high-stakes certification exams are frequently employed to shed light on effective instruction (Michael, 1997). Demographic variables, such as the geographic location of the school, student socioeconomic status, family situation, and the number of English language learners within a cohort tend to influence the quality of education (Payne, 2008).

The process of acquiring knowledge in one academic discipline may not easily translate to another field secondary to the nature of sociocultural factors and their effects on pedagogy (Limberg, Sundin, & Talja, 2012). The academic register of a subject impacts independent learning and critical thinking abilities in students (Gee, 2008). For instance, technical terms in allied health education can be rather dense (Petersson, Ingvar, & Reis, 2009; Wolf, 2007). Abstract concepts and application of concrete ideas into the real world can be tough for students, particularly for those who do not speak English as their first language (Dehaene, 2011). Some non-native speakers may require six or more years to gain proficiency in academic English (Kamberelis, Gillis, & Leonard, 2014). The ever-changing landscape of literacy (Leu, Kinzer, Coiro, Castek, & Henry, 2017) within academic disciplines can challenge administrators

responsible for program evaluation. By involving educators in everyday decision-making, school leaders often develop performance indicators and strategically modify instruction to support sustained implementation of educational activities (Darling-Hammond, Hyler, Gardner, & Espinoza, 2017; Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016; Resources for Learning, 2017).

As Nomi and Allensworth (2014) have noted, "schools need to know how to effectively organize instruction for students with varying skill levels while offering a common, rigorous academic curriculum" **(**p. 4). Educators can help design learning activities, customize curricular initiatives (Benevot, 2015), and analyze educational equity in a variety of learning contexts (Connor, Karmokar, Whittington, & Walker, 2015) including workplace training environments. Educators not only support academic achievement but also help students engage in political advocacy and civic issues such as the Dream Act (Perry, 2012; Rissanen, 2014; Wolf, 2007). Educator self-efficacy can positively influence student attitudes towards learning and knowledge acquisition despite the myriad of barriers evident in diverse learning contexts (Clarke & Hollingsworth, 2012; Cliatt-Wayman, 2015).

Context of the Study

Workplace training is often less formal than classroom learning (Eraut, 2010). Occupational therapy fieldwork involves dynamic, interactive professional learning experiences between clients, students, and educators in a social context. The academic fieldwork coordinator of the educational program is responsible for establishing fieldwork experiences in community-based settings and traditional practice (Costa, 2015). Faculty perceptions of the quality of learning, including fieldwork educator competence, may influence the processes of selection, recruitment, and retention of training sites (Costa, 2015; Koski et al., 2013). Despite professional development and mentoring programs targeted towards fieldwork, there is little accountability in

OT workplace training (Evans & Porche, 2005; Lew et al., 2007). The OT profession does not mandate its practitioners to engage in fieldwork-specific professional development likely due to rising educator shortages. Participation in one shot training workshops such as the Fieldwork Educator Certificate Workshop (AOTA, 2019b) and similar professional development activities may be somewhat ineffective in improving practitioner competence specific to fieldwork education (Jensen et al., 2016). The lack of professional accountability can further exacerbate the shortages of high-quality fieldwork training and negatively impact student learning outcomes.

Academic fieldwork coordinators and faculty across OT and OT assistant schools served as the professional context for this needs assessment study. The researcher is a faculty member at an OT assistant program, Daytona State College, located in Daytona Beach, Florida. During the 2016-17 academic year, the program had at least 51 students completing fieldwork in diverse traditional and role-emerging settings annually during the Spring and Fall terms. The needs assessment study was conducted at the meso- and exosystemic levels (Bronfrenbrenner, 1979) to gain insight into the perceived competencies of fieldwork educators. Although the study was not specific to any academic institution or field setting in particular, the data obtained is relevant to the problem of practice. Faculty members and fieldwork coordinators frequently interact at the state and national levels through academic forums, educational consortium meetings, and electronic listservs to address shortages of field sites. Topics discussed during the intraprofessional meetings, at the local and national levels, help fieldwork coordinators make informed decisions regarding site recruitment, resource allocation, and program modification with emphasis on aligning workplace training programs with curricular themes. The needs assessment findings not only help to illuminate some of the challenges experienced by the researcher in recruiting fieldwork sites in his home state of Florida but also offer a wider lens to

investigate the problem experienced by most OT programs across the nation (Evenson et al., 2015).

Statement of Purpose

Occupational therapy educational programs increasingly utilize role-emerging placements for student fieldwork secondary to limited resources, reimbursement-induced constraints, and high allostatic load in conventional medical settings (Hanson, 2011b; Howard, 1991). Role-emerging placements include workplace training in settings such as drug and alcohol recovery centers, homeless shelters, juvenile detention facilities, and community outreach centers (Costa, 2015). Effective fieldwork educators in traditional and role-emerging settings can transcend environmental barriers to maximize student achievement during workplace learning (Cliatt-Wayman, 2017; Koski et al., 2013). The researcher aimed to examine perceived competencies of fieldwork educators in conventional fieldwork settings as compared to those at nontraditional sites. Assessing practitioner expertise specific to fieldwork can potentiate future improvement efforts in workplace learning. Practitioners have limited time and conflicting demands in the field (Evenson et al., 2015). Occupational therapy faculty receive feedback from both the students and fieldwork educators regarding the quality of workplace learning (Costa, 2015). As a result, the researcher intentionally chose to investigate faculty perspectives about typical fieldwork educator competencies for this needs assessment. As discussed in Chapter 1, the faculty participants from local OT programs and from other schools nationwide are a part of the meso- and exosystems of the problem of practice respectively (Bronfrenbrenner, 1979).

The purpose of the study was to compare faculty perceptions of the fieldwork educator competencies in traditional and role-emerging settings. A survey was designed for academic fieldwork coordinators, adjunct faculty, and instructors teaching OT in post-secondary

institutions and technical colleges. The study aimed to elicit faculty perceptions of educator competence under the domains of: (a) professional practice, (b) education, (c) supervision, (d) evaluation, and (e) administration, as defined by the AOTA (1997).

Research Questions

The following research questions were developed to illuminate factors that enhance knowledge of the problem of practice:

(a) What percentage of OT educational programs utilize nontraditional fieldwork for workplace education?

(b) What percentage of Level I and Level II fieldwork placements are designated in nontraditional practice settings?

(c) Within the past five years, has the utilization of nontraditional fieldwork sites by educational programs increased?

(d) What are the perceived differences, if any, in the typical competencies of fieldwork educators employed in traditional and role-emerging settings?

Methodology

During the spring 2017 academic semester, an online Qualtrics survey (Qualtrics, Provo, UT) was designed and approved by the Johns Hopkins University institutional review board (see Appendix A). The study used a mixed methods design approach with open-ended questions and Likert-style items related to educator proficiency. The Likert-style questions were identical to the items on the SAFECOM tool (AOTA, 1997). The survey also included text boxes for respondents to provide subjective data in support of the numerical ratings on the SAFECOM. Providing qualitative responses was not mandatory, and respondents had the choice to rate only the quantitative items on the survey.

Participants

The student investigator contacted over 80 faculty members teaching in OT/OT assistant programs in the United States via email. Fifty-eight faculty members responded to the survey request. Each of the 58 surveys were opened, but only 44 faculty ($N = 44$) attempted the survey, yielding a response rate of 75%.

Measures and instrumentation

The survey included four introductory questions, listed under the section of research questions, to assess the nature and extent of nontraditional fieldwork site utilization by the academic programs. The initial questions were followed by the items specifically aimed at analyzing educator expertise in role-emerging and conventional settings.

Self-Assessment Tool for Fieldwork Educator Competency (SAFECOM). The SAFECOM tool, published by AOTA (1997) was the primary instrument used to compare typical competencies between traditional and nontraditional fieldwork educators. The tool includes 69 items under five domains of: (a) professional practice, (b) education, (c) supervision, (d) evaluation, and (e) administration. Although the validity and reliability measures of this instrument have not been established, the SAFECOM is widely used as a self-assessment measure in OT fieldwork (see Appendix B). According to Koski et al. (2013):

> The SAFECOM is viewed as the most current method of voluntary self-assessment by the American Occupational Therapy Association to determine one's abilities and competencies in the fieldwork educator role. The SAFECOM was an expansion by the American Occupational Therapy Association (AOTA) Commission on Education of an original document developed by Wisconsin Council on Occupational Therapy, intended as a self-appraisal of ideal behaviors of an occupational therapy fieldwork educator. The AOTA Representative Assembly adopted the SAFECOM as a professional development

> self-assessment tool in 1998. As an industry standard for success, the behaviors outlined on this tool were felt to be the most important to examine for the purposes of this study. The SAFECOM competencies are broken into 5 categories: Administration, Evaluation, Education, Supervision, and Professional Practice. The SAFECOM utilizes a 5-point rating scale from 1 (low proficiency) to 5 (high proficiency) to aid in self-assessment. (p. 309)

The original SAFECOM tool and concept measures are included in Appendix B and Appendix C, respectively. All items on the original instrument were used *as is*, but the instructions were adapted for faculty to report their perceptions of typical fieldwork educator adeptness in particular contexts. Each of the quantitative items on the survey were designed as forced-response. The respondents, however, had the choice to select the non-applicable (*N/A*) tab which was intentionally added to the survey. In case a survey item did not apply to their context, a respondent could check the non-applicable tab and include descriptive comments on the survey to explain further.

Procedures

A pilot electronic survey based on the SAFECOM tool was designed using Qualtrics survey software. Five faculty members were initially recruited via convenience sampling to participate in the pilot survey. Participants were given one week to complete and return the survey electronically. Only three surveys were returned. The layout of the survey was revised based on the feedback from the three participants. Question numbers were added to identify each survey item individually so that participants could reference specific items when providing subjective comments.

The revised online survey consisted of 73 items, including four questions about trends in fieldwork site recruitment and the type of nontraditional settings utilized by academic programs.

A combination of convenience, judgment, and snowball sampling was used to recruit participants commencing in April 2017 through October 2018. The student investigator encountered several challenges in recruiting participants for this survey. The survey window was left open for 18 months due to the low response rate.

Data collection. Data was collected using Qualtrics. The survey was electronically distributed to program faculty through email requests and private messages on virtual platforms such as Facebook messenger, LinkedIn, AOTA Listserv, and the Occupational therapy connections' website. The student investigator also contacted members of the Florida Occupational Therapy Association, Florida Occupational Therapy Education Consortium, and volunteers of the National Board for Certification in Occupational Therapy (NBCOT, 2017) in person. The student investigator reached out to faculty and academic fieldwork coordinators from the various associate, master's, and doctoral level programs during the 2017 AOTA National conference in Philadelphia. Fifty-eight respondents returned the signed consent forms and opened the survey. Owing to the diversity and spread of academic programs across the United States, an online survey was deemed appropriate for this needs analysis. The data was stored securely on a work computer in Daytona Beach, Florida, bearing in mind the privacy and confidentiality of the respondents.

Data analysis. Quantitative and qualitative data from the sample ($N = 44$) was downloaded from Qualtrics. The quantitative values were imported into SPSS software for further analysis. Numerical ratings were analyzed using descriptive statistics, including means, standard deviation, and paired *t* tests to compare the scores on the SAFECOM.

Quantitative analysis. A quantitative approach was used to analyze numeric data about the extent of nontraditional fieldwork utilization, and the ratings on the SAFECOM instrument. All statistical tests, including the paired samples *t* test, were performed using listwise deletion in

SPSS version 25. A significance of $p < .05$ was used for all statistical analyses. The effect size was calculated in an Excel spreadsheet. Due to a typographical error, one item under the administration competencies E.16 was excluded from the data analysis.

Qualitative analysis. A frequency analysis program (Cobb, n.d.) was used to organize the qualitative comments for detailed review. The researcher perused the comments for the extent of nontraditional fieldwork utilization including those about the scores and competencies listed on the survey.

Findings and Discussion

Although 44 responses were recorded, only 17 respondents completed rating all the items on the SAFECOM instrument. At least 29 respondents indicated that survey questions, particularly those related to nontraditional fieldwork educators, did not apply to their contexts. As a result, over 50% of the quantitative ratings on the Likert-scale were missing. The researcher did not attempt to impute missing values to prevent bias (Baraldi & Enders, 2010; Leite & Beretvas, 2010). Due to the low response rate and non-applicable values on the survey, qualitative data from the respondents were examined closely to understand potential reasons for the missing data.

The findings revealed that most academic programs utilize nontraditional fieldwork placements. Over 98% of the responses indicated that OT and OT assistant educational programs use role-emerging placements for Level I and Level II fieldwork. The extent of selection of role-emerging rotations by academic programs was variable. Some programs reported that 100% of their Level I placements were in role-emerging settings, whereas others reported that selection of nontraditional placements were based on factors such as quality of learning experience, nature of setting, and student preference. One respondent stated that:

> Approximately 20%, 1/3 of our Level I placements are considered nontraditional. We require all students to have a Level I placement in a community-based setting. Typically, there is no OT on site. Examples include adult day programs, hospice, centers for individuals with mental health diagnoses, centers for individuals recovering from addiction, center for at risk youth, skill building programs for individuals with developmental disabilities, support programs for those grieving loss from cancer. All of our Level II placements are currently within traditional settings. (Respondent P)

Existing shortages in mental health fieldwork were cited as the main reason for the utilization of nontraditional placements (Atwater & Davis, 1990; Costa, Molinsky, Kent, & Sauerwald, 2011; Hengel & Romeo, 1995). Due to the strong emphasis on psychosocial fieldwork by ACOTE (2012), educational programs do not have a choice but to develop role-emerging opportunities in mental health settings. Several comments reflected the scarce availability of fieldwork educators in psychosocial and community-based mental health settings. Respondent Q stated that:

> We primarily utilize nontraditional fieldwork settings for our mental health rotations. It seems that very few occupational therapists practice in a mental health setting, so our students work with recreational therapists, mental health counselors, etc. instead of OT's. These students go to drug and alcohol centers, behavioral centers, community outreach centers, as well as facilities for the visually impaired.

The shortages of fieldwork educators in mental health practice are well documented in OT literature (Chiang et al., 2013; Costa et al., 2011; Evenson et al., 2015; Johnson et al., 2006). According to the national workforce survey conducted by AOTA (2015a), only 2.4% of occupational therapists and 1.4% of OT assistants work in the area of mental health. Furthermore, the survey found that only 2% of the OT workforce was employed in nontraditional

practice settings. The primary reason for the limited number of practitioners is predominantly due to the negative growth of compensation in community-based practice (AOTA, 2015a).

The Accreditation Council for Occupational Therapy Education (ACOTE, 2018) requires a minimum of 8 hours of direct OT supervision during nontraditional Level II fieldwork. A student may practice under the supervision of a non-OT practitioner during the remainder of the nontraditional or role-emerging field experience (ACOTE, 2018). Since some degree of direct OT supervision is mandated for Level II fieldwork, the needs assessment revealed that more nontraditional placements were utilized for Level I (92.9%) as compared to Level II fieldwork (68.4%). Direct OT supervision is not a requirement for Level I fieldwork. However, one school was unable to offer any Level I or II placements in role-emerging practice areas due to state guidelines that mandate the presence of an OT practitioner on the site full-time. Contrary to the evidence about the expansion of role-emerging fieldwork (Hanson, 2011b; Heine & Bennett, 2003; Overton et al., 2009), most responses suggested that the utilization of nontraditional placements had not increased over the past five years. It is likely that the frequency of role-emerging sites recruited by individual programs could be plateauing. But the overall number of programs training students in community-based practice may still be higher (Overton et al., 2009).

Most responses suggested that nontraditional fieldwork assignments have been integrated into the curriculum due to the ACOTE (2018) fieldwork standards which mandate fieldwork training in mental health. Due to limited number of training opportunities in psychosocial settings, programs may assign multiple students to one fieldwork educator during Level I experiences (Hengel & Romeo, 1995). Training of four or more students in groups is more prevalent during Level I fieldwork (Evenson et al., 2015). Ironically, fieldwork sites generally do not prefer the group student supervision model (Recker-Hughes, Wetherbee, Buccieri,

Fitzpatrick-Timmerberg, & Stolfi, 2014). High stress and competing demands at the workplace may deter practitioners from accepting multiple fieldwork students concurrently (Evenson et al., 2015). Some educators argue that group supervision helps students initiate autonomous practice and independent thinking skills (Hengel & Romeo, 1995). However, students themselves may not be satisfied with the group training models because fieldwork educators have little time to interact with each student individually. Students also prefer to learn from OT practitioners rather than non-OT professionals during the field experience (Heine & Bennett, 2003). This finding was evident in Respondent R comments who stated that:

> We always offer a variety of nontraditional opportunities to our students, but very few of them show interest. They say they are paying for the experience, so they would prefer to learn directly from an occupational therapist, and then do the volunteer work on the side. They also worry that completing a nontraditional fieldwork experience will not prepare them for their certification exam as much as a traditional site might.

Unfortunately, some students equate role-emerging placements to service learning or community service (Chabot, n.d.). The concerns regarding group supervision and limited interaction with OT practitioners may discourage students from pursuing role-emerging Level II fieldwork placements (Heine & Bennett, 2003).

There was no statistical significance established on 63 out of the 69 items of the SAFECOM to distinguish fieldwork educator competencies in traditional and role-emerging settings (see Appendix D). Only six items—three under the professional practice, one under supervision, and two under administration domains—yielded statistically significant differences of low- to mid-effect size between the two groups (see Table 2.1). There were significant differences in the scores on item A.2 between conventional fieldwork educators ($M = 4.12$, $SD = .78$) and their nontraditional peers ($M = 3.0$, $SD = 1.32$) conditions; $t\ (16) = 3.08$, $p = .00$.

Significant differences were also noted in the scores for item A.7 between conventional fieldwork educators (M = 4.29, SD = .84) and their nontraditional counterparts (M = 3.24, SD = 1.39) conditions; t (16) = 3.08, p = .01. The respondents perceived fieldwork educators in traditional settings to have superior competencies in professional practice items A.2, A.7, and A.16 on the SAFECOM (see Table 2.1).

Table 2.1

Comparison of competencies between traditional (T1) and nontraditional (T2) fieldwork educators

Item/Description	Mean T1	Mean T2	Difference of means (T1-T2)	*SD*	*p* value (one-tailed)	Cohen's *d*
Professional Practice Item A.2: The fieldwork educator skillfully collects and analyzes clients' occupational profile and performance in order to develop and implement OT services.	4.12	3.00	1.12	1.49	.03	.74
Professional Practice Item A.7: The fieldwork educator collaborates with the OT/OT assistant to provide evaluation, interpretation of data, intervention planning, intervention, discharge planning, and documentation.	4.29	3.24	1.05	1.88	.01	.56
Professional Practice Item A.16: The fieldwork educator is knowledgeable about entry-level practice skills for the OT and the OT assistant.	4.24	3.41	0.82	1.77	.03	.46

(continued)

Table 2.1 (continued)

Comparison of competencies between traditional (T1) and nontraditional (T2) fieldwork educators

Item/Description	Mean T1	Mean T2	Difference of means (T1-T2)	*SD*	*p* value (one-tailed)	Cohen's *d*
Supervision Item C.13: The fieldwork educator consults with other fieldwork educators and sites to develop creative learning experiences for the student.	3.18	3.82	-0.06	1.36	.03	.47
Administration Item E.1: The fieldwork educator communicates and collaborates with academic programs to integrate the academic curriculum design during fieldwork.	2.76	3.41	-0.65	1.45	.04	.44
Administration Item E.3: The fieldwork educator seeks support from fieldwork site administration and staff to develop and implement the student fieldwork program.	2.94	3.65	-0.71	1.31	.00	.54

Conversely, fieldwork educators in role-emerging settings demonstrated higher competencies ($M = 3.82$, $SD = 1.23$) than their conventional counterparts ($M = 3.18$, $SD = .88$) conditions; $t(16) = -1.95$, $p = .00$ in one item under the supervision domain C.13. Nontraditional fieldwork educators also exhibited higher competencies specific to items E.1 and E.3, under the administration domain. A detailed description of items with statistically significant differences between the two groups is included in Table 2.1.

Traditional fieldwork educators were found to have higher competencies on items related to the process of OT service delivery as defined by the OT Practice Framework (AOTA, 2014). Faculty perceived traditional fieldwork educators to be more skilled at conducting assessments, planning, and implementing OT interventions as compared to nontraditional fieldwork educators.

Conventional fieldwork educators were also perceived to be more adept at analyzing a client's occupational profile, documenting and planning discharge, and delineating roles between entry-level occupational therapists and OT assistants (AOTA, 1997). On the other hand, fieldwork educators in role-emerging settings were found to be better at collaborating with external sources to develop creative learning opportunities for students. Creativity in learning is defined as "the interaction among aptitude, process, and environment by which an individual or group produces a perceptible product that is both novel and useful as defined within a social context" (Plucker, Beghetto, & Dow, 2004, p. 90). High stress, work demands, organizational barriers, and systemic limitations may restrict traditional fieldwork educators from collaborating with schools and affiliated organizations for using innovation during workplace training (Taylor, 2014). Time constraints may also deter traditional educators from communicating with the academic institution to align learning experiences with the program's curriculum design. The results indicate that nontraditional fieldwork educators are more likely to collaborate with the academic program as compared to their peers in traditional facilities. Fieldwork educators in conventional settings are less likely to seek support from support staff and administration for developing workplace learning programs.

Occupational therapy practice settings are diverse (Costa, 2015). There may be varying levels of proficiencies among fieldwork educators given the heterogeneous nature of OT. The purpose of the survey was to assess typical competencies in traditional and role-emerging fieldwork educators. The not applicable (*N/A)* answer option was intentionally included in the survey to minimize systematic and idiosyncratic errors (Schutt, 2015). Although this option resulted in missing ratings, the student investigator added text boxes for subjective comments. Despite providing textboxes throughout the survey, some respondents found the survey to be challenging. One respondent stated that:

> It is very difficult to answer this due to the fact that Level I and Level II are entirely different, so this is an average. Would be much better to do one set of answers for Level I and another set of answers for Level II. (Respondent S)

This feedback from respondent S is useful to design future studies. However, adding another set of response items to distinguish between Level I and Level II placements would have increased the time required to complete the survey substantially. Difficulties in responding to the survey were noted by adjunct faculty and instructors who had little or no experience with fieldwork coordination. The fieldwork coordinator acts as a conduit between the school and the practice settings to develop workplace learning programs (Costa, 2015). Some respondents ($n <$ 5) indicated that they could not understand the questions on the survey, nor did they have adequate information or experience as adjuncts to complete the survey.

There are a variety of supervision models available for student supervision within workplace environments (Costa, 2015). For instance, students may be supervised by a non-OT practitioner such as a nurse, vocational counselor, or social worker for Level I role-emerging fieldwork. Some academic institutions recruit or assign a designated faculty member to serve as the primary fieldwork educator at a role-emerging site. The diverse qualifications and credentials within the pool of nontraditional fieldwork educators could have resulted in significant variance in the survey responses. Although some responses reflect typical competencies of non-OT practitioners, others may indicate perceived skills of OT faculty members who supervise students in role-emerging practice. A respondent noted that irrespective of the nature of differences in educator proficiency, OT practice in nontraditional fieldwork sites adds value to the quality of instruction. The respondent mentioned:

> I find it odd to rate and compare non-OT fieldwork educators' knowledge of OT principles/approaches. We use a compilation of nontraditional placements and

> "traditional" placements to give students a variety of experiences. Nontraditional placements offer students an opportunity to build group process, leadership, and community integration skills they might not learn in traditional settings. (Respondent T)

Some responses suggested that the schools offer unconventional placements only to those students who are interested in non-clinical careers. As practice in role-emerging areas can provide flexible employment, some students may seek training in alternative areas outside of conventional OT practice.

There were several limitations to this study. Some respondents ($n < 5$) communicated by email that the survey was too long. The consent form indicated that the survey would require a time commitment of approximately 30 minutes. The respondents had the option to complete the survey partially and return to it later. The length of the survey and the time required for completion could have limited the sample size (Koski et al., 2013). It is also likely that the respondents experienced boredom or fatigue while responding to over 69 survey items (Lavrakas, 2008). The student investigator could have reduced the dimensions of the survey by factoring in any overlap between the items on the SAFECOM instrument. Reducing the number of items could have potentially improved the respondent experience with the survey. But fewer survey items could have potentially yielded high statistical variance that would have compromised the quality of the data (Scholte, Calsbeek, Nijhuis-van der Sanden, & Braspenning, 2014).

The data was analyzed using listwise deletion in SPSS to minimize risk of bias from pairwise deletion (Allison, 2001). Pairwise deletion often results in different sample size values as a result of the missing data. Although pairwise deletion uses most of the available data, it is rather difficult to accurately estimate the standard error or calculate correlation (Allison, 2001). Using listwise deletion caused low statistical power of the quantitative ratings. The resulting

sample size was too small to discuss generalizability. Despite the low sample size, the student investigator made no attempts to expand the sample by recruiting actual OT practitioners in the field. The SAFECOM is a self-assessment tool for practitioners to self-identify and improve their skills in fieldwork education (AOTA, 1997). The Dunning-Kruger effect (Dunning, 2005) could cause low-performing practitioners to overestimate their abilities, whereas the high-performers may report inferior proficiencies on a self-assessment. Dunning (2005) described this effect as the "anosognosia of everyday life" (p. 14).

Chapter 3

Literature Review

The Accreditation Council for Occupational Therapy Education (ACOTE, 2018) describes fieldwork as an integral part of the OT curriculum. The terms experiential learning, clinical education, workplace training, internship, professional learning, and clerkship are synonymous with fieldwork in OT. Clinical education has been defined as " … the practice of assisting a student to acquire the required knowledge, skills and attitudes in practice settings, such as health service clinics and field work sites, to meet with standards defined by a university degree structure or professional accrediting/licensing board" (Rose & Best, 2005, p. 3). Occupational therapy students participate in professional learning in workplace environments for their entry-level experiential training. Fieldwork not only provides essential practical exposure to students but also serves as a conduit for educator professional development. A fieldwork educator is a designated practitioner who supervises students during the training (ACOTE, 2012). Successful experiences in the field may lead to future employment opportunities for students in the workplace.

Occupational therapy students often complete fieldwork in traditional medical facilities such as hospitals, outpatient clinics, and rehabilitation centers. The experiential training in medical facilities typically includes dynamic, interactive learning experiences with qualified fieldwork educators, clinical faculty and, practitioners (Costa, 2015). Since the early 2000s, emerging trends in primary care have instantiated experiential learning in nontraditional practice areas such homeless shelters, schools for the visually impaired, juvenile detention facilities, and resource centers for developmental disabilities (Hanson, 2011b; Institute of Medicine, 2010). With the launch of the Affordable Care Act in 2010, there is increased legislative impetus for growth in primary care and preventive health models (Braveman, 2015), which has led to a surge

in these role-emerging internships in community-based practice. However, only two percent of the OT workforce is employed in these nontraditional practice areas (AOTA, 2015a). Most OT practitioners work in hospitals, rehabilitation centers, and outpatient clinics (AOTA, 2015a), and therefore, a majority of the students still complete their fieldwork training in contemporary medical settings. Due to limited resources and personnel shortages in these medical facilities (Evenson et al., 2015), there are limited opportunities for differentiated instruction in OT fieldwork.

Research dedicated to the scholarship of OT fieldwork is still in its nascent stages (Roberts, Hooper, Wood, & King, 2014). According to the World Health Organization (WHO, 2018), the general public is often at risk of receiving low-quality services due to inadequate clinical training of health professionals. Evidence of limited resources in the workplace (Estes & Brandt, 2011; Tomson & Proctor, 1990) combined with educator shortages (Evenson et al., 2015) can further exacerbate the quality of training in OT. Fieldwork in workplace settings is less formal and lacks structure as compared to classroom learning (Eraut, 2009). Integrating clinical education into the curriculum can be a challenge due to competing demands at workplace sites (Costa, 2015). Existing gaps between practice and education may impede the processes of developing coherent program designs, prescribing alternatives to conventional curricula, and offering effective community-based internships that meet the learning objectives (Coles, 1990; Evenson et al., 2015). Integrating clinical training into the program "cannot be a process of simply sending students out to various placements and hoping that some lessons may be learnt … A system and philosophy of work integrated learning needs to be developed with a sound pedagogical basis" (Hyams, 2011, p. 90).

This problem of field placement shortages is not unique to OT (Casares, Bradley, Jaffe, & Lee, 2003). Most health disciplines including nursing and physical therapy are experiencing

similar resource challenges with growing student numbers and reduced availability of clinical educators to train students (Currens, 2003; Hayden et al., 2014; Rodger et al., 2008). Several attempts have been made by academic leaders to overcome these challenges. For instance, OT academic programs are frequently using creative supervision models to manage the scarcity in clinical placements (AOTA, n.d.). At times, two or more students are assigned to one fieldwork educator in medical settings (Currens, 2003; Costa, 2015). This supervision model of assigning multiple students to one educator has failed to gain traction in the physical therapy profession (Recker-Hughes et al., 2014). Speech and language pathology schools are offering innovative training opportunities using peer supervision, peer coaching, and multidisciplinary internship placements (Hill, Davidson, & Theodoros, 2010). Due to pervasive issues surrounding time constraints, large patient volumes, high productivity, and practitioner burnout (Ofri, 2019), there is a dearth of quality research in unconventional training models in the workplace (Costa, 2015; Roberts et al., 2015a).

Efforts to address these fieldwork shortages are ongoing in the OT profession. For instance, Eidson (2012) recommended creating a comprehensive marketing plan with a central database that could serve as a virtual repository for all available OT fieldwork placements across the nation. This database would allow OT students from any state to apply to a pool of open clinical placements nationwide. Establishing a national fieldwork registry shared by all schools and fieldwork sites could help streamline the process of procuring in-state and out-of-state internships (Eidson, 2012). Faculty may be able to project shortages and alter dates of field placements based on open listings on this registry. With sustained implementation and collective organization, this database could be expanded for similar clerkships in foreign countries (Costa, 2015).

Due to the expense involved with student travel and relocation, OT schools are using varied strategies to fund out-of-state and international field placements (Costa, 2015). Students can learn different aspects of practice in underserved communities, particularly cultural and ethnographic factors, by pursuing fieldwork in a different cultural context. Due to the small representation of ethnic minorities in the OT profession (AOTA, 2015a), monocultural practices may be prevalent in practice settings (Nieto, 2008). International fieldwork and global initiatives are opportunities for increasing knowledge about multiculturalism, diversity, equity, and inclusion (Banks, 2015). Students are expected to demonstrate cultural sensitivity during all patient care activities, understand global health concerns, and their influence on practice (Odawara, 2005). In courses related to epidemiology, OT students learn about the prevalence of medical conditions such as obesity, autism, and HIV across the world. Immersive experiences in foreign cultures (Banks, 2015) give students opportunities to apply their knowledge surrounding global perspectives while developing effective patient interventions.

In 2010, the Department of Education created the National Council for State Authorization Reciprocity Agreements to regulate post-secondary distance education in the United States (Williamson et al., 2015). This new legislation has created additional barriers in providing out-of-state clinical placements for students (Williamson et al., 2015). The expense and uncertainty involved with domestic and foreign travel often deter students from pursuing fieldwork placements outside their home state (Rozier et al., 1992). Reducing the duration of the fieldwork training may help contain the costs involved with lodging, boarding, and other related expenses. However, decreasing the prescribed length of experiential training may not only compromise student mastery for successful entry-practice (Daelmans, Mak-van der Vossen, Croiset, & Kusurkar, 2016), but also violate established accreditation standards (ACOTE, 2018).

A potential alternative involving teletherapy-related internships is underexplored in OT (AOTA, 2020).

Since the introduction of the Affordable Care Act, newer health service delivery models in preventive health have emerged in the United States (Braveman, 2015). Despite this change, students may be likely to pursue clinical placements in traditional settings over role-emerging opportunities in preventive health (Heine & Bennett, 2003). A needs assessment study, described in Chapter 2, compared faculty perceptions of fieldwork educator competencies in role-emerging and contemporary settings. The results of the needs assessment revealed that faculty view conventional fieldwork educators to have superior competencies in areas related to direct patient intervention and service delivery as compared to their peers in role-emerging practice. The learning context may have likely influenced faculty perceptions of the quality of workplace learning (Eraut, 2009; Raphael, Vasquez, Fortune, Gavelek, & Au, 2014). Educators must reflect on their own beliefs surrounding fieldwork education and its objectives before addressing student perspectives about training in innovative environments (Parker et al., 2015). A collaborative inquiry between students and educators can be instrumental in building capacity among stakeholders for developing new curricula and sustaining new program implementation (Youngs & Lane, 2014).

Theoretical Framework

Social constructivism supports the creation of knowledge through engagement in authentic human activity (Ertmer & Newby, 1993; Gee, 2008). It is the foundational basis of learner-centered humanistic theories that require learners to collaborate and interact with their surroundings (Svinicki, 1999; Taylor & Hamdy, 2013). Sociocultural approaches, introduced by Vygotsky (1978), are based on the premise that human activity occurs in social contexts, and is influenced by a myriad of factors, such as language, culture, environment, and history. Vygotsky

(1978) described the model of the zone of proximal development, which is a two-stage process of knowledge acquisition that includes concepts of knowledge-in-use and knowledge-in-waiting. Both concepts are equally essential to foster a learner's efforts in achieving competence. The gap between a student's level of potential development from its current baseline is crucial to determine the nature of guided instruction offered to the learner by a mature, experienced peer (Bransford, Brown, & Cockings, 2001). According to Spouse (2001), interpersonal communication aids in progressing the learner through the zone of proximal development and allows for knowledge-in-waiting to be employed in everyday situations, thereby transforming it into knowledge-in-use. This process can help bridge the gap between theory and skill development required for practical application of knowledge and expansion of the learner's craft (Spouse, 2001). Narrowing the gap between epistemic knowledge and practical expertise is challenging in most health professions (Copley, Rodger, Hannay, & Graham, 2010).

The learner requires initial support to develop expertise in content-specific language known as the academic register (Gee, 2008) in every discipline of study. Vygotsky (1978) described the importance of symbolic language representation in the development of knowledge within a social context. Transfer of knowledge and generalization of skill from the classroom to real-world settings is an active process that involves scaffolding (Bransford et al., 2001). Scaffolding helps build existing knowledge acquired from previous experiences through a series of steps that involve use of authentic activity (Brown et al., 1989). Graded, structured, and sequential instruction from a seasoned mentor is valuable in progressing the learner through the zone of proximal development (Spouse, 2001). Opportunities to assess previous knowledge facilitate the process of acquiring new knowledge (Bransford et al., 2001). The instruction provided initially supports the learner's needs at their baseline and is gradually weaned as the learner acquires mastery and competence (Brown et al., 1989). This grading of teaching and

instruction supports knowledge acquisition in social contexts and is an integral part of the learning experience (Gee, 2008).

The situated learning theory posits that effective learning is contingent upon the demands of the learning activity, the environment, and the culture in which learning occurs (Lave & Wenger, 1991). Professional learning involves dynamic, interactive, and reflective experiences shared between the student and the educator in a social context (Rohlwing & Spelman, 2014). According to Lave and Wenger (1991), professional collaboration in communities of learning can positively influence the learner's mastery of content knowledge, reasoning, and practice skills. Lave and Wenger (1991) describe situated learning as "legitimate peripheral participation" with active collaboration between novice and experts in learning contexts (p. 40). As novice members become experts, their role becomes central to the learning community.

The interdisciplinary nature of OT supports opportunities for students to collaborate with academic leadership and community partners (Baird et al., 2018). Interprofessional collaboration between diverse practitioners including physical therapists, speech pathologists, teachers, nurses, psychologists, and physiatrists in professional learning communities can enhance student learning (Falzarano, 2010). The cognitive apprenticeship model further informs active learning in dynamic social contexts (Brown et al., 1989). The model includes different stages of a typical internship such as: (i) observation, (ii) coaching, (iii) scaffolding, (iv) modeling, (v) fading, and (vi) reflection (Brown et al., 1989). Each stage is crucial during workplace training to facilitate critical thinking, problem-solving, and independent learning capacities among students.

Synthesis of Research Literature

Experiential learning is a collaborative process (Costa, 2015). It involves active professional learning experiences that are designed to promote student interaction and reflection in authentic learning contexts (Costa, 2015). An integrated curriculum that supports community

engagement and continuous improvement is central to the concept of learning by doing (Merriam & Bierema, 2014; Schaber, 2014). A coherent curriculum design establishes links between primary topics, ideas, and concepts in the profession, and can be instrumental in reducing gaps between theory and practice (Fink, 2013). Professional learning communities can help to facilitate lifelong learning, creative thinking, and innovation among students (Hardiman, 2012).

As the stakes to succeed are high, students may be anxious during fieldwork training (Lew et al., 2007). Students who have experienced toxic stress and scarcity during childhood may view novel experiences and innovative fieldwork with skepticism (Balfanz, 2019a). They may prefer to conform with the rules in conventional learning contexts secondary to fear of failure in high-stakes licensing exams (Taylor, 2014). According to Farrington (2014), "academic achievement for minority students often comes at a significant personal price" (p. 54). Students from underrepresented communities may experience anxiety when interacting with SPs during simulation. They may be concerned that training with SPs may reduce the time they get to spend with actual patients in traditional medical settings (Ulrich & Mancini, 2014). Potential employers may recruit high-performing students during traditional fieldwork within the medical model (Costa, 2015). Since simulated experiences and role-emerging fieldwork may not lead to the same extent of employment opportunities as conventional training, students from poor socioeconomic backgrounds may be pessimistic about training in alternative learning environments.

Substantive efforts focused on improving student morale can influence their perceptions toward job-embedded training (Learning Forward, 2011). Involving students, faculty, and other stakeholders in making informed decisions based on the quality and rigor of professional learning experiences can be instrumental in reforming practice (Calvert, 2016). Situated learning and sociocultural approaches highlight the importance of developing coherent professional

learning and communities of practice to address gaps in student performance (Raphael et al., 2014). Learning communities are conducive for knowledge creation, professional collaboration, and program improvement (Sanders & Galindo, 2014). The literature review examines the influence of factors such as teacher agency and adult learning as it related to OT fieldwork. The implications of collaborative, context-specific, systemic, and sustained professional learning are also discussed (Desimone & Stuckey, 2014).

Teacher Agency

Teacher agency can positively influence student engagement in learning (Clarke & Hollingsworth, 2002). Teacher agency is defined as "the capacity of teachers to act purposefully and constructively to direct their professional growth and contribute to the growth of their colleagues" (Calvert, 2016, p. 4). According to Calvert (2016), improving educator expertise through engagement in professional development activities can, in turn, enhance student knowledge and mastery. Developing meaningful, intellectually stimulating professional development for educators with adequate support and personalized attention can facilitate teacher agency (Oude Groote Beverborg, Sleegers, & van Veen, 2015; Resources for Learning, 2017). Professional development activities focused on promoting learning communities, leadership, and resource development can empower educators to make sound pedagogical decisions to meet the student learning needs (Learning Forward, 2011).

Professional learning communities dedicated to career readiness and vocational skills can help minimize achievement gaps in post-secondary students (Oude Groote Beverborg et al., 2015). Learning communities build teacher capacity by promoting collaboration and reducing the onset of teacher isolation (Mraz & Kissel, 2014). Active engagement and collective reflection in learning communities can substantially increase educator commitment toward continuous school improvement (Darling-Hammond et al., 2017). Transformative leadership in schools can create

opportunities for collaborative learning and can positively impact educator self-efficacy (Oude Groote Beverborg et al., 2015). School leaders must share a common vision for professional learning that instantiates a unified philosophy for student-practitioner collaboration and professional excellence (Balfanz, 2019a). School leaders should monitor patterns in curriculum change and analyze data from multiple sources for a comprehensive understanding of gaps in student achievement (Learning Forward, 2011; Raphael et al., 2014). Valuable information obtained from various data sources including student reflection, surveys, deconstructing lesson plans, and analysis of student performance can drive data informed decision-making in learning contexts. The evaluative aspects of professional learning can inform the processes of planning, implementation, and follow-up for sustained growth (Guskey, 2002).

An organizational culture that supports teacher professional development invests substantially in the refinement of its educators (Lemov, 2015). One of the threats to continuous workplace improvement is the limited time available for educators to learn, reflect, and integrate professional development in their practice (Jensen et al., 2016; Rohlwing & Spelman, 2014). Superficial and misdirected reforms can be detrimental to educator self-efficacy and negatively influence their motivation and compliance with professional development (Calvert, 2016). With adequate foresight and unified vision, academic leaders can provide valuable resources such as funding and release time to educators for sustained professional development (Jensen et al., 2016). They must collectively address educator self-efficacy, resource availability, and student achievement gaps to improve school outcomes (Tschannen-Moran & Chen, 2014). A needs assessment study that explored educator agency in OT fieldwork is described in Chapter 2.

Collaborative Learning

To enhance the value of professional learning, academic leaders must acknowledge the unique attributes of adult learners (Resources for Learning, 2017). Adults seek diversity in

learning (Rohlwing & Spelman, 2014). They are adept at taking responsibility for their own learning to create change (Mezirow, 1997). Adult learners reflect on their experiences and seek opportunities to make meaning from newly acquired information. Novel experiences are integrated with prior knowledge and applied in practice settings (Rohlwing & Spelman, 2014). The relevance of professional learning to real-life situations creates opportunities for knowledge sharing, peer collaboration, and sustained professional development (Knowles, 1968). This process of "collective tinkering" generates opportunities to strengthen learning experiences (Avalos, 2011, p. 15).

The sociocultural learning theory describes the importance of inner voice for critical reflection and self-directed inquiry among learners (Vygotsky, 1978). As noted by Criticos (1993), "effective learning does not follow from a positive experience but from positive reflection" (p. 162). A supportive organizational culture can help learners reflect and engage in meaningful discourse with experts in the field. This shared dialogue supports knowledge appropriation and transformation of curricular themes as well as instructional designs for improved learning outcomes (Raphael et al., 2014; Tschannen-Moran & Chen, 2014). Guided instruction from experts in the field can generate opportunities for meaningful collaboration and pedagogical innovation (Rohlwing & Spelman, 2014).

Educators can collectively adopt resources such as the Standards for Professional Learning (Learning Forward, 2011) to initiate desired changes in learning contexts. These standards (Learning Forward, 2011) describe a bidirectional cycle targeted at producing continuous improvement in professional learning. Given that adults learn in diverse ways and at different speeds, the standards-based cycle can be applied either in a forward or backward sequence. In a forward approach, the cycle guides workplace improvement by initially modifying student learning outcomes that subsequently lead to changes to educator practice. Directed

changes in practice can then potentiate educator knowledge, skills, and attitudes towards professional development. The approach may also be applied in a backward sequence by introducing innovative learning designs that inform educator insights about professional learning. Altering educator perceptions about innovation may subsequently produce positive changes in educator practice and eventually impact student achievement. Reform efforts applied in either a forward or backward direction must be singularly focused on producing sustained workplace improvement (Learning Forward, 2011).

Context-Specific Learning

An in-depth understanding of organizational factors is vital for substantive implementation of professional learning in the workplace (Anderson, 2017). Adopting a systems-based approach at the macro level can transform the institutional culture to reflect the ethos of a learning organization (Bryk, Gomez, Grunow, & LeMahieu, 2015). According to Jensen et al. (2016), factors such as effective leadership, resource allocation, outcomes assessment, and educator accountability are crucial for successful implementation of professional learning. An institutional culture dedicated to lifelong learning can increase practitioner skills, behaviors, and attitudes toward institutional improvement, and substantially improve practitioner involvement in organizational reform, leadership, and decision-making. Novice practitioners are not typically adept at ensuring high-quality pedagogy for effective professional education (Spillane, Reiser, & Reimer, 2002). They often fail to develop integrative models that yield well-rounded reforms (Anderson, 2017). Disjointed school reforms not only impede innovation in learning contexts (Bryk et al., 2015), but also result in leadership failures for conducting transparent performance evaluations. Establishing clear links between professional learning and institutional excellence can initiate change in the organizational culture. Providing adult learners with strategic choice to select learning activities that best fit their contexts can yield improved outcomes (Lemov, 2015).

Educators must use nuanced approaches to implement innovative learning designs within their contexts (Raphael et al., 2014). The Standards for Professional Learning (Learning Forward, 2011) emphasize the significance of funding and resource allocation for generating high-quality outcomes. Resource availability can influence the fidelity of implementation and the magnitude of change in learning contexts. According to Andersen (2017), small incremental changes in professional learning tend to be adopted with higher implementation fidelity. On the other hand, large-scale reforms may yield favorable effects contingent upon the extent of teacher knowledge, and the purpose, need, and coherence of the learning designs to generate change (Reutzel & Clark, 2014). Educators may diverge from the suggested learning designs or modify educational prescriptions to fit their learning contexts. These program alterations may reduce the implementation fidelity and often result in undesired outcomes (Desimone & Garet, 2015; Reutzel & Clark, 2014). External sources can help schools implement new learning designs for continuous improvement (Tschannen-Moran & Chen, 2014). Ongoing support and coaching from outside facilitators can help educators meet desired outcomes efficiently (Youngs & Lane, 2014). Educators should share a mutual responsibility for managing available resources and aligning them with the objectives of the professional learning (Lemov, 2015). Monitoring resource utilization and outcomes can assist school leaders in promoting equity and social justice in academic institutions (Learning Forward, 2011; Youngs & Lane, 2014).

Systemic Professional Learning

Routine assessments and timely application of teacher professional development can facilitate school reform and curricular improvement (Institute of Education Sciences, 2018a). Contextual characteristics such as organizational leadership can influence students' reactions towards learning and teacher compliance with professional development (Resources for Learning, 2017). Educational researchers often use descriptive items on surveys and focus

groups to assess stakeholder perceptions of the level of organizational support (Anderson, 2017). Stakeholders' beliefs, values, and reactions toward new knowledge can influence the extent of change in learning contexts (Guskey, 2014). In the absence of collaborative exchange between students and practitioners, it may be rather challenging to evaluate tacit knowledge about their perspectives toward professional learning (Merriman, 2014; Spillane et al., 2002). Assessing educator understanding of innovative learning designs can be tricky secondary to competing demands in practice (Spillane et al., 2002). Implementation of model programs in mentoring circles and creative use of support personnel can help educators integrate innovative approaches in their daily work routines (Firestone & Mangin, 2014).

Systematic evaluation methods can help stakeholders analyze the relevance of professional learning (Learning Forward, 2011). Educators may lack necessary expertise to conduct rigorous evaluations for measuring the effects of professional learning (Guskey, 2014). Educators can collaborate with program developers and researchers to develop appropriate research questions, methodologies, and strategies for data analysis (Sanders & Galindo, 2014). A shared inquiry between students, teachers, program developers, and researchers may yield favorable results for new program implementation (Calvert, 2016). A planned investigation and detailed evaluation of appropriate instructional methods can produce valuable evidence about student learning achievement (Guskey, 2002).

Strategic evaluations of program effectiveness will influence system-wide adoption and policy development (Jensen et al., 2016). The sustainability of professional learning is contingent upon program effectiveness and the fidelity with which research findings are integrated in practice (Anderson, 2017). Comparing conventional learning with newly developed programs can provide valuable insights about educator capacity and motivation for instructional improvement (Guskey, 2014; Institute of Education Sciences, 2018b). Cultivating a sense of

shared responsibility among stakeholders for high-quality learning requires sustained collaboration (Rohlwing & Spelman, 2014). Professional learning communities can develop indicators to measure program effectiveness and prevent the abandonment of innovative programs in learning contexts (Guskey, 2002; Learning Forward, 2011). Collaborative, data-driven decision-making can positively influence instructional practices and student achievement (Guskey, 2002). Including learners in the decision-making process can positively impact their self-efficacy (Dagen & Bean, 2014; Firestone & Mangin, 2014; Resources for Learning, 2017).

Engagement in professional learning can support learner self-efficacy and influence their readiness to change (Learning Forward, 2011). Learning designs that incorporate adult learning theories seek to balance the complex interplay between the learner, task, and environment (Lemov, 2015). The dynamics between the learner's behavior, cognitive processes, and learning context can be dissected in detail for assessing the effectiveness of professional learning. Guskey (2014) proposed a model that includes five critical levels for a thorough evaluation of professional development. The levels include: (a) participants' reactions; (b) participants' learning; (c) organizational support and change; (d) participants' use of new knowledge and skills; and (e) learning outcomes. This model highlights the importance of the participants' views of learning in the assessment (Firestone & Mangin, 2014). Each level described in the model is equally significant for evaluating the value of professional learning (Guskey, 2014).

Sustained Learning

Teaching and learning is complex (Avalos, 2011). Novice educators may lack pedagogical content knowledge to initiate positive change in their practice (Shulman, 1986). They may have few resources to integrate new knowledge that support efforts for workplace improvement (Clarke & Hollingsworth, 2002). A network of learning communities, professional organizations, and research initiatives dedicated to continuous improvement can magnify the

social capital available to educators (Sanders & Galindo, 2014). These partnerships can support educators to implement reforms that help integrate funds of knowledge within schools and community agencies (Griffith, Plummer, Connnery, Conway, & Wade, 2014a).

Effective professional learning is characterized by active learning experiences that are coherent, sustained, content-focused, and collaborative in nature (Desimone & Stuckey, 2014). An organizational culture that integrates these features commits itself to providing high-quality professional learning and sustained program implementation (Darling-Hammond et al., 2017; Jensen et al., 2016; Resources for Learning, 2017). Time constraints, limited resources, and budget cuts in learning contexts may yield superficial reforms that are not tremendously different from existing teaching practices (Anderson, 2017). Funding, resource allocation, and the time allotted for improvement initiatives often determine the success of the reform (Jensen et al., 2016). An organizational culture that invests in its educators and their sustained development is crucial for school improvement (Lemov, 2015).

A learner-centered model helps school leaders navigate the challenges of external accountability and sustained professional learning in academic environments (Firestone & Mangin, 2014). A school culture that supports learner transformation and asserts the importance of continuous improvement helps in mitigating complex issues in practice (Reutzel & Clark, 2014; Rohlwing & Spelman, 2014). This helps learners add personal value to their experiences and facilitates their commitment towards positive change (Anderson, 2017). Techniques such as microteaching, targeted reading, journaling, and self-reflective writing help in scaffolding student knowledge (Griffith, Ruan, Stepp, & Kimmel, 2014b). These techniques involve detailed observation, analysis, and sustained focus on solving problems in authentic or simulated contexts (Brown et al., 1989), and can thereby improve metacognitive awareness in both students and educators (Firestone & Mangin, 2014).

School leaders, in particular, must develop strategies that support reflection and metacognition for improved sensemaking during professional learning (Anderson, 2017). In order to design effective professional learning, school leaders must "begin with an end in mind" (Resources for Learning, 2017, p. 14). A backward learning design in curriculum development prioritizes end goals for knowledge creation (see Figure 3.1). A staircase curriculum can assist educators in creating a roadmap that is instrumental for achieving desired student outcomes (Raphael et al., 2014). Active experimentation, collective engagement, reflective praxis, and curriculum coherence are important components of the backward learning design approach (Oude Groote Beverborg et al., 2015; Raphael et al., 2014). Reflective praxis, in particular, is critical in promoting the transfer of new information in the real world (Rohlwing & Spelman, 2014).

Figure 3.1. Backward instructional design. From "Designing education to convey occupational therapy's distinct value using the subject-centered integrative learning model*"* by B. Hooper, 2017, Fort Collins, CO. Institute presented at Colorado State University on June 21-23, 2017. Reprinted with permission.

Supporting prior knowledge of learners with practices such as instructional coaching and personalization can enhance pedagogical innovation (Youngs & Lane, 2014). Opportunities for program variation and modification can support the diverse needs of adult learners with varied

experience levels (Anderson, 2017). Differentiated instruction creates opportunities for learning choice and improved accountability in educational environments (Firestone & Mangin, 2014). Differentiated instruction can also facilitate the use of creative media and technology to improve knowledge integration (Desimone & Garet, 2015; Learning Forward, 2011; Rapahel et al., 2014). According to Avalos (2011), aligning curricular themes with available resources in learning contexts can support knowledge integration. Explicitly linking the curriculum to professional learning will benefit learners in holistically translating content knowledge to practice (Desimone & Garet, 2015).

Trends and Issues in OT Fieldwork Education

There may be reduced accountability in OT fieldwork education due to the lack of standards for professional learning (Heine & Bennett, 2003). Students have reported ineffective teaching practices and decreased satisfaction with training procedures during fieldwork (Deidrich, 2018; Lew et al., 2007; Velde et al., 2005). Fieldwork-specific accreditation standards (ACOTE, 2018) and assessments are often focused on quantitative attributes such as duration of clinical training, number of years of practitioner experience, and the volume of patients seen instead of the quality and rigor of the experiential education (ACOTE, 2012; Lew et al., 2007). The quantitative attributes of fieldwork education are perhaps a reflection of the profession's long-history of struggles surrounding reimbursement, work volume, and practitioner shortages (Brachtesende, 2005; Overton et al., 2009; Pendleton & Schultz-Krohn, 2017; Slater, 2006). Due to extant scarcity in fieldwork placements, the academic leadership in the OT profession is not prescriptive about the quality of experiential learning (Hanson & Graves, 2016). Mandating professional development activities specific to experiential education may prove counterproductive in addressing the shortages in fieldwork placements. There are few professional development opportunities in OT dedicated to fieldwork education. One shot

training workshops organized by the AOTA and independent state-level organizations may produce some gain in practitioner competencies and student outcomes (Costa, 2015). However, research in professional development suggests that these one shot trainings are rather ineffective (Learning Forward, 2011). Academic leaders must promote a professional development culture to change this practice in professional development and champion an inquiry-based approach for identifying student learning challenges during fieldwork (Jensen et al., 2016). Occupational therapy practitioners need nuanced approaches for sustained professional learning (Griffith et al., 2014a) to effectively manage time constraints, reimbursement-induced challenges, and other competing demands in the profession.

The Problem of Authenticity in Medical Settings

Occupational therapy is not practiced in vacuum (Howard, 1991). Socioeconomic factors impact resource utilization and influence the scope for reform in most professions (School of Education, Ed.D., 2013). New insurance models expect OT practitioners to target clinical excellence and financial feasibility to compete in a complex health care environment (Chew & Kurfuerst, 2011). Practitioners are expected to balance the complexities between reimbursement-induced constraints and guidelines for effective practice (Slater, 2006). Since the 1980s, there have been calls for improved accountability in the OT profession (Gilfoyle, 1984). Related disciplines in allied health have questioned the authenticity of OT practice due to evidence of service duplication and professional encroachment (Gillen, 2013). As per Gilfoyle (1984),

> During the past few decades, occupational therapy has been in a state of identity crisis where the reality of occupational therapy and its proper place within health care systems is being questioned. Our profession must also question its value system, dimensions of practice, and educational requirements. (p. 375)

The AOTA has urged its members to be proactive in maintaining the profession's unique identity (Lamb, 2016). The concerns about the profession's identity, ethics, and inherent value in the health care system may outweigh the benefits of training in medical settings, especially in skilled nursing and long-term care centers (Evans & Porche, 2005; Slater, 2006). A recent study by Jewell, Pickens, Herschm, and Jenkins (2016) indicated that more than half of the OT interventions in skilled nursing facilities did not emphasize occupation-centered tasks for supporting patient independence. In a similar study conducted in a stroke rehabilitation unit, Smallfield and Karges (2009) found that over 66% of OT interventions were not related to functional gains or occupational achievement in patients. The interventions focused mostly on prefunctional activities, tabletop tasks, or exercises that are not associated with alleviating occupational deprivation (Smallfield & Karges, 2009). These studies highlight the gaps between theoretical frameworks and existing practice (Hakim et al., 2014; Jewell et al., 2016), and support evidence that the fundamental concept of occupation may be rather elusive in OT curricula and instructional methods (Krishnagiri, Hooper, Price, Taff, & Bilics, 2017).

Skilled nursing facilities employ the majority of OT practitioners in the United States (AOTA, 2015c). The implicit focus on the core concept of occupation during patient interventions combined with the incidence of fraudulent practices and unethical professional behaviors exhibited by practitioners in these facilities is gravely concerning (Evans & Porche, 2005). At the 2016 AOTA national conference in Chicago, former AOTA President Amy Lamb challenged educators and practitioners to revisit the core values of the profession and adopt occupation-centered approaches in their practice. Lamb (2016) suggested that the trends related to the use of contrived interventions and non-occupation-based assessments can be correlated with unreasonable demands on practitioners in medically based settings. It is likely that the incidences of unethical practices including Medicare and Medicaid fraud (Evans & Porche,

2005) are a direct consequence of high productivity expectations in skilled nursing and long-term care facilities. Factors such as increased patient volume, time constraints, and declining reimbursement can lead to chronic stress and burnout in practitioners (Slater, 2006). Practitioner burnout not only affects the quality of patient care (Ofri, 2019), but also depreciates the role of the practitioner as a fieldwork educator who is responsible for training students (Lew et al., 2007). Despite these complex challenges, OT practitioners are expected to demonstrate the value of occupation in daily interventions, and endeavor to "put the occupation back into occupational therapy" (Gillen, 2013, p. 650).

On the positive side, a recent study conducted by health policy researchers from Johns Hopkins University and University of Maryland School of Medicine found that "occupational therapy is the only spending category where additional hospital spending has a statistically significant association with lower readmission rates" (Rogers, Bai, Lavin, & Anderson, 2016, p. 1). The researchers gathered data from Medicare claims in 2,791 hospitals including cost analyses from 19 distinct spending categories to evaluate health care costs related to recidivism in chronically ill patients. The research included three chronic conditions: heart failure, pneumonia, and myocardial infarction. Occupational therapy, when practiced authentically, can play a valuable role in maintaining functional performance of senior adults and can support aging-in-place for those with complex cardiorespiratory conditions. Providing OT services in a timely fashion can help save precious Medicare dollars, prevent repeated hospitalizations, and improve the quality of life of millions of Americans (Rogers et al., 2016).

Expansion of Community-Based Practice Models

Despite spending 17.9 percent of its gross domestic product on health-related expenditure, the United States consistently ranks lower than most developed countries in its health quality index and access to essential health care services (Barbe, 2017; Braveman &

Gottlieb, 2014). Programs such as Healthy People 2020, designed by the U.S. Department of Health and Human Services, promote social outreach to reduce health disparities in the general population (Centers for Disease Control [CDC], 2017). In 2007, the Institute of Healthcare Improvement launched the Triple Aim of health care to address three main objectives: (a) reduce health care costs; (b) improve quality of health service; and (c) maximize outcomes in population health and wellness (Braveman, 2015). Due to the impact of socioeconomic factors on population health (WHO, 2017), a framework based on the social determinants of health was proposed by the Institute of Medicine (2016). The WHO (2017) defines social determinants of health as "the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life" (para. 4). This framework is particularly beneficial in for educating future health professionals and is gaining national recognition in its efforts to support federal mandates geared towards population health (Braveman, 2015).

The Institute of Medicine (2016) designed the social determinants of health framework using the transformative learning theory. Transformative learning is a theory in progress related to humanistic approaches in education (Taylor & Hamdy, 2013). The dichotomy between a learner's knowledge-in-use and knowledge-in-waiting (Vygotsky, 1978) provides opportunities for critical reflection about human beliefs, assumptions, and views about the structures, contexts, and processes involved in learning (Mezirow, 1997). According to Knowles (1980), education that promotes critical thinking, autonomy, and reflective practice in adult learners can advance efforts for continuous improvement. Addressing the learner's perceptions about the significance of education not only influences their worldview but also guides future action (Mezirow, 1997).

Figure 3.2. Framework for lifelong learning in health professionals. From "A framework for educating health professionals to address the social determinants of health" by Institute of Medicine, 2016 (http://www.nationalacademies.org). Copyright 2016 by Institute of Medicine. Reprinted with permission.[1]

The social determinants of health framework is classified into three broad domains: (a) education, (b) organization, and (c) community, and nine domain components (see Figure 3.2). There are nine components that include concepts such as experiential learning, collaborative learning, integrated curriculum, community engagement, and supportive organizational environment. These concepts are crucial for establishing a commitment for lifelong learning in health professions (Institute of Medicine, 2016). Racial, ethnic, gender, and economic disparities significantly influence the health outcomes of the population (Institute of Medicine, 2016).

[1] See Appendix E

Discrepant health indicators such as life expectancy and infant mortality are indicative of widespread health inequities in the United States (Clarke, 2018). According to Braveman and Gottlieb (2014), issues such as environmental exposure to pollutants, risky adolescent behaviors (Clarke, 2018), and gender-based pay discrimination negatively impact the health and wellness quotient of disadvantaged neighborhoods. The rising incidence of gun violence, drug overdose, and COVID-19 related deaths across the United States have increasingly widened the disparities in health outcomes (Anoruo & Kagan, 2020; Clarke, 2018).

By elaborating the role of practitioners in preventive health and primary care (Braveman, 2015), the social determinants of health framework promotes partnerships between academic institutions, community agencies, and corporations to promote health equity for all (Merriam & Bierema, 2014). The framework promotes establishing curricula and instructional methods that help students in applying knowledge about the social determinants during professional learning. Training in community-based settings provides students with opportunities to understand the effects of the social determinants on population health (Hanson, 2011b). Occupational therapy is taking proactive steps to align its education, practice, and research activities with the goals of the Triple Aim of healthcare. Adequate support and instruction in nontraditional field environments can help lower the rate of recidivism in those patients diagnosed with chronic illnesses (Gawande, 2011).

Health Literacy and Nontraditional Fieldwork. Legislation such as the Patient Protection and Affordable Care Act (2010) have emphasized the importance of health literacy (HL) to deliver high-quality healthcare at subsidized costs. The U.S. Department of Health and Human Services describes HL as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (National Network of Libraries of Medicine [NNLM], 2011, para. 1). According to

the CDC (2018a), low HL is a serious public health issue affecting nine out of every ten adults. At least 50% of the adults without high school education are at risk for experiencing serious medical issues like medication errors, increased hospital visits, and high mortality (Brach et al., 2012). Unfortunately, health professionals frequently overestimate HL abilities in ethnic minorities, low-income groups, and immigrant patient populations (Weekes & Phillips, 2015). Low HL statistics are even more staggering in geriatric settings. Over 70% of senior adults are reported to have experienced difficulties with using print materials and electronic health media (CDC, 2018b). According to some estimates, poor health care outcomes secondary to low HL rates in sensitive population groups cost the U.S. economy about $106 billion to $238 billion annually (Vernon, Trujillo, Rosenbaum, & DeBuono, 2007).

The CDC (2018a) recommends all educational settings take incremental steps for incorporating standards-based curricula with developmentally appropriate health and science-based information to increase awareness about HL. This goal for promoting HL is also supported by standard B.4.21 of the educational standards published by ACOTE (2018). This standard specifically states that prior to graduation, an OT assistant student must successfully "demonstrate the principles of the teaching-learning process using educational methods and health literacy approaches" (ACOTE, 2018, p. 31). Designing fieldwork experiences in community settings can help maximize student exposure to HL-related issues across practice settings. The objectives of a nontraditional fieldwork experience can be centered around increasing student knowledge about HL using multiple perspectives. Students can also investigate under-addressed issues such as rising costs of pharmaceuticals and health premiums and their influence on patient outcomes. Resources such as the Health Literacy Expanded Model (Zarcadoolas, Pleasant, & Greer, 2006) and National Action Plan for Health Literacy (CDC, 2018a) can help community-based agencies become effective health literate organizations (Brach

et al., 2012). In addition, organizations such as the Florida Literacy Coalition, Institute of Medicine, and National Institutes of Health can enhance client-centered care, improve quality of service, and curtail growing health expenditure in those with inadequate HL levels. For instance, the Health Literacy Expanded model is a conceptual framework that can be used promote comprehension and application of HL across the curriculum (Zarcadoolas et al., 2007). The HL Expanded model serves as a foundation to allow practitioners to customize literacy improvement strategies to the needs of the populations they serve (Benevot, 2015). This model can guide the design of targeted HL improvement activities using relevant assessments, simulated scenarios, case studies, and video-based vignettes that support understanding of multiliteracies as social practice (Perry, 2012). The model includes four key domains: fundamental, scientific, civic, and cultural literacy (see Appendix F) that support various domains of the multiliteracies' framework (Zarcadoolas et al., 2007). Students and clients can benefit from integrating multiliteracies in OT fieldwork (Levasseur & Carrier, 2012).

According to Zarcadoolas et al. (2007), fundamental literacy is the core domain of the HL Expanded model and includes concepts of reading, writing, articulation, and numeracy. Seniors may experience a decline in their levels of functional literacy associated with cognitive, linguistic, and visual deficits secondary to aging (Wolf, 2007). Advanced age may cause non-native English language speakers to revert to communicating in their mother tongue. Similarly, scientific literacy influences a patient's understanding of physical and natural sciences for basic comprehension of staging and progression of a disease process (Mosley & Taylor, 2017). Scientific literacy helps patients understand scientific parameters like tumor markers, phases of metastatic cancers, and the sliding-scale insulin therapy regimen used in managing diabetes. Civic literacy pertains to an individual's ability to make informed decisions based on resources provided by government agencies and related public health organizations (Mosley & Taylor,

2017) such as the ones offered for purchasing health insurance. Patient knowledge about new infections like COVID-19, and awareness of vaccines for preventing diseases like measles, shingles, and pneumonia are vital for engagement in civic activities (Wolf, 2007). Ethnographic factors that impact patient-practitioner interaction and communication of sensitive health information are studied under cultural literacy (Zarcadoolas et al., 2007). Cultural literacy includes concepts of practitioner knowledge, beliefs, and values surrounding disability as a sociocultural paradigm (Perry, 2012).

Health Literacy is critical to patient safety and can significantly reduce healthcare expenditure (Brach et al., 2012). Therefore, high-performing organizations incorporate HL trainings during organizational planning for the purpose of quality assurance and improvement (Weekes & Phillips, 2015). Assessments such as Health Literacy Assessment Questions (DeWalt et al., 2010), and the Health Plan Organizational Assessment of Health Literacy Activities (Gazmararian, Beditz, Pisano, & Carreon, 2010) can be used for research activities in field settings. Conducting a root-cause analysis can guide the design and planning of effective HL interventions (Brach et al., 2012).

One of the most significant challenges in implementing HL interventions is that most practitioners have limited time for administering assessments and designing activities specific to HL (Lambert et al., 2014). Strategies for effective patient communication are often underutilized in most clinics (Schwartzberg, Cowett, VanGeest, & Wolf, 2007; Turner et al., 2009). Patients with disabilities may experience toxic stress and stigma that can impede their ability to communicate with health professionals. Skilled practitioners often struggle with high workload demands that can negatively impact the quality of care (Slater, 2006). Students can support practitioners in identifying signs of low HL rates in patients and edit written materials for ease of comprehension (Hadden, 2015). Students can also develop patient handouts with pictorial cues

with elementary concepts such as handwashing, which correspond to Grade 5 or 6 educational levels (Brach et al., 2012). To enhance culturally responsive pedagogy, students can initiate contact with a medical interpreter to assist non-English-speaking patients or produce information in several languages with closed captioning on video and PowerPoint presentations. Students may utilize simulation, digital technologies, and innovative media (Lewis, 2018) to develop patient education materials geared towards improving HL. These opportunities help integrate arts in the predominantly science-driven health curricula and support creative endeavors for improved innovation in the health education (Taylor, 2014).

The pursuit of acquiring literacy is intentional, purposeful, and deictic, as it is subject to change based on the contextual demands (Leu et al., 2017). Literacy provides an individual with the ability to read, write, and integrate information across a broad range of platforms, and promotes skills for identifying, recognizing, and implementing knowledge for personal, social, or employment gain. Florida has some of highest concentrations of aging seniors in the nation (Gant, 2013). Despite the prevalence and incidence of HL-related issues in the state, the assessment of a senior adult's HL status is not a standard requirement in most health curricula (CDC, 2018b). Fieldwork in community-based settings provides opportunities to incorporate effective health literacy programming within the OT curriculum. Educational programs can require students at both the undergraduate and graduate levels to evaluate, design, and promote activities that support HL among the general population. Keeping in mind the changing needs of our seniors, immigrants, low-income groups, and ethnic minorities (Weekes & Phillips, 2015), a future goal for fieldwork training could include following up on prior HL-based interventions and determine their effectiveness in clinical environments. Recognizing the barriers to HL-based approaches can help learners comprehend underconceptualized issues of health equity and social justice. Shared knowledge between students and practitioners will lead to more in-depth

understanding of complex topics that support skill acquisition for the 21st century learner (Benevot, 2015).

Standardized Patient Programs

Student success during fieldwork training is imperative for future practice in complex health environments (Eidson, 2012; Hanson & Graves, 2016). Since the mid-1990s, educators in medicine and nursing have utilized high-quality simulation as an alternative to substitute clinical training in their curricula (Ulrich & Mancini, 2014). Replacing professional training in real-world contexts with high-fidelity simulation is widely accepted in health professions (Hayden et al., 2014), but simulation-based resources in OT fieldwork are underexplored (Bethea, Castillo, & Harvison, 2014). Mirroring advances in medicine and allied health professions, ACOTE (2018) recently updated its accreditation standards and recommended that OT and OT assistant students can complete Level I fieldwork in simulated environments. According to ACOTE (2018), the simulated training may include student practice with high-fidelity simulators, mannequins, or SPs that are comparable in rigor (see Figure 3.3). During Level I fieldwork, students learn basic communication techniques, professionalism, and patient handling skills, including application of introductory OT knowledge (ACOTE, 2012). Academic programs are increasingly developing creative fieldwork experiences using simulation to provide opportunities for differentiated instruction (Bethea et al., 2014).

Figure 3.3. A student engaging in a simulation exercise with a mannequin. From "Patient Simulation Learning Outcomes Laboratory" by Daytona State College, 2018 (https://www.daytonastate.edu/chhps/HPS.html). Copyright 2018 by Daytona State College. Reprinted with permission.

A standardized patient (SP) program is a creative simulation-based technique that fosters essential, job-embedded learning in health professions (Wallace, 2006). An SP is an actor in reasonable health who is trained to portray the role of a patient with one or more medical conditions (Smith & Lammers, 2014). These actors play their part in a consistent, uniform manner that can be reproduced with different student cohorts and in a variety of simulation scenarios (see Figure 3.4). Several studies have found SPs valuable for assessing student performance (Bennett et al., 2017; Bethea et al., 2014). Standardized patients are trained to provide realistic training including instant feedback to students during debrief sessions (Rosenzweig et al., 2008). Increased collaboration between SPs, fieldwork educators, clinicians, and faculty can benefit the design and fidelity of the simulation. Partnerships between school and community agencies in learning communities can support the intent of enhancing realism and authentic learning in SP programs (Baird et al., 2018).

Figure 3.4. Students learning to break bad news to an SP during simulated training. From "Avkin: Health Care Simulation" by A. Cowperthwait & M. Weldon, 2018 (https://avkin.com/). Copyright 2018 by M. Weldon. Reprinted with permission.

Allostatic overload in health education can negatively influence creative emergence, intellectual pursuits, and work-life balance among students and faculty (Plucker, 2017; Taylor, 2014). Comparing student perspectives about SP programs with their experiences in traditional fieldwork and role-emerging placements is crucial for academic program evaluation (Grenier, 2015). As end-users of the training, students can provide school leaders with vital feedback for program development.

Advantages and Challenges in Simulation-Based Education

High-fidelity simulation can reform professional learning in health professions (Wallace, 2006). Simulation can help prepare students for practice in emerging areas of primary care and preventive medicine (Nestel & Bearman, 2012). Students often lack confidence for safe patient handling in medical settings (Biggers, Zimmerman, & Alpert, 1988). High workload and productivity demands may negatively impact critical thinking skills and cognitive abilities required for performing patient interventions safely (Jeffries, 2008). Engaging students in

deliberate practice in a controlled, non-threatening simulated environment can help transfer knowledge to novel settings (Gooding, Mann, & Armstrong, 2016; Hardiman, 2012). Simulation cannot entirely substitute the value of hands-on training with real-life patients, but it does provide students with the concrete opportunities to learn in low-risk environments (Ganley & Linnard-Palmer, 2012). Besides, simulated experiences support student-centered learning by providing a sense of psychological safety to the learners, thereby improving competence (Ganley & Linaard-Palmer, 2012). Use of SPs can increase the authenticity and add personal value to the learning experiences (Ulrich & Mancini, 2014).

Standardized patient programs replicate real-life situations and provide faculty with the opportunity for educational innovation and differentiated instruction (Bethea et al., 2014). The programs can promote student understanding of conceptual knowledge and enhance mastery of subject-specific information (Smith & Lammers, 2014). Faculty can utilize simulation-based training to establish links between curricular threads, topics, and practical techniques that improve student expertise (Fink, 2013). Experimental studies in simulation have demonstrated statistically significant gains in student critical thinking, clinical reasoning, communication, and clinical judgment skills (Botma, 2014; Guhde, 2010; Lasater, 2007; Rosenzweig et al., 2008). Well-designed SP programs can be consequential in maximizing students' tolerance to ambiguity in the OT profession (Coffey, Lamport, & Hersch, 2015; Estes, 2004). Due to the pervasive gaps between OT theory and practice (Gillen, 2013), methods such as targeted reading, journaling, and self-reflective writing in simulated environments can help students transform into lifelong learners (Nestel & Bearman, 2012). Simulation-based education thus holds immense potential for benefitting OT education (Bennett et al., 2017).

Instructors and SPs provide instant feedback during simulation debriefing that helps

promote metacognitive abilities and critical self-reflection among students (Hardiman, 2012; Wallace, 2006). The programs can be personalized to provide instruction in cultural sensitivity (Ulrich & Mancini, 2014), particularly in schools with predominant homogenous student populations (see Figure 3.5). School and community partners that include SPs, fieldwork educators, practitioners, researchers, and faculty, can be instrumental in developing professional learning communities dedicated to supporting realism and authentic learning in simulated environments (Baird et al., 2018). Ideally, every stakeholder involved can collaborate and share responsibilities to improve SP program fidelity (Ulrich & Mancini, 2014). A flowchart (see Figure 3.6) depicts the key players whose collaboration and commitment can benefit the design and fidelity for simulation.

Figure 3.5. Students engaged in cultural competency training with a female SP playing the part of an Afghan woman. From "Avkin: Health Care Simulation" by A. Cowperthwait & M. Weldon, 2018 (https://avkin.com/). Copyright 2018 by M. Weldon. Reprinted with permission.

Figure 3.6. Flowchart of key players. Adapted with permission from "The subject-centered integrative learning model: A new model for teaching occupational therapy's distinct value" by B. Hooper, M. Molineaux, and W. Wood, 2020, *Journal of Occupational Therapy Education*, *4*(2), p. 4. CC BY-NC-ND.

For instance, OT practitioners can provide faculty with real-life case scenarios for use during simulated training while maintaining patient privacy and confidentiality. The faculty, in turn, may review the complexity of the cases and adapt them for training students at entry-level (Nehring & Lashley, 2010). Program facilitators can subsequently incorporate detailed scripts and protocols for improved consistency during SP portrayal. Actual patients and administrators may also be involved for improved fidelity of simulation. Although the school administration is typically responsible for ensuring the staff and students' well-being, SPs must also be safeguarded against potential malpractice (Ulrich & Mancini, 2014). Researchers must develop well-defined questions to investigate current issues in SP training and program

implementation. Every stakeholder involved in the process can play a vital role in contributing to the scholarship of simulation (Smith & Lammers, 2014).

Implementing curricular change on a large scale can be challenging (Anderson, 2017). Educators may have a steep learning curve while integrating novel techniques in a simulation-based curricula. They may lack the knowledge, skills, and resources required for effective program development (Spillane et al., 2002). Educators new to simulation may need additional training to be competent in laboratories (Nestel & Bearman, 2012). The need for experienced faculty and essential resources including a revised curriculum, assessment rubrics, lab space, SPs, mannequins, props, and technology set-up can seem disconcerting to school leaders (Smith & Lammers, 2014). Shortages of qualified instructors (Allen, 2008), trained SPs, and staff required for simulation programs can negatively influence student preparedness and their transition into clinical environments (Ulrich & Mancini, 2014). Limited human capital in developing programs may impact educator efficacy and consequently affect student confidence in practice settings (Lew et al., 2007).

The effects of simulation-based education on student anxiety require further exploration. Training in SP programs may induce stress and negative emotions in students (Boddicker, Winkelmann, Neil, Walker, & Eberman, 2020; Reteguiz, 2006). Students may fail to retrieve knowledge during simulated training and experience difficulty in transferring skills to authentic settings. Although simulation can yield tangible gains in student outcomes, it may be hard to sustain those benefits over time in practice environments (Miller, Crandall, Washington, & McLaughlin, 2012). Ironically, there is evidence that simulation can help reduce anxiety in some students (Bremner, Aduddell, & Amason, 2008). In a study by Megel et al. (2012), students reported improved confidence with repeated practice in simulated environments before transitioning to the field.

Securing Stakeholder Commitment toward Simulation-Based Education

Simulation is often viewed as a complement rather than a substitute to conventional training (Ulrich & Mancini, 2014). Every stakeholder or authority involved in making decisions about SP programs may perceive the problem of practice differently. Their perspectives may be spread across a commitment continuum (see Figure 3.7). For instance, the administrators at the educational institution may deny the data about fieldwork shortages (Evenson et al., 2015) and the needs assessment findings referenced in Chapter 2. In this era of education budget cuts and cost containment, school administration may pretend that the problem does not exist. Advisory boards and community partners may accept the problem but may believe that SP training is a transient solution. The School Board of Trustees may believe that SP programs are a reactionary measure whose effects on clinical excellence may be short-lived (Miller et al., 2012). On the other hand, faculty and clinical educators may accept the problem, but may be skeptical about student success in SP programs. The students may accept the data but think that it is the responsibility of the school and the accreditation body (ACOTE, 2017) to address the scarce resources in experiential education.

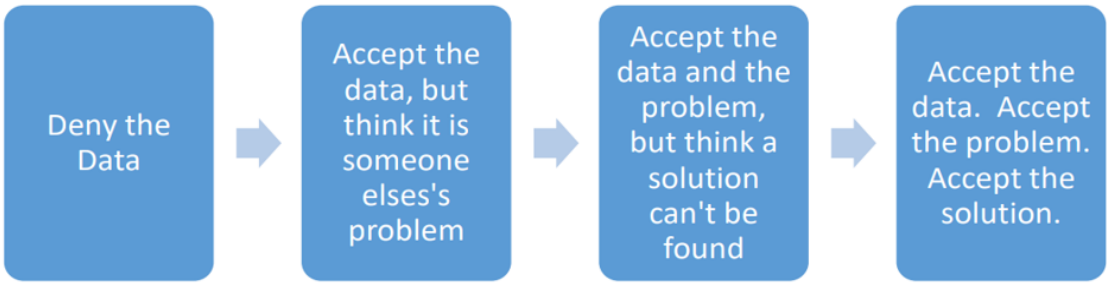

Figure 3.7. Continuum of stakeholder commitment. Reprinted from "Straight A leadership for the seasoned hospice executive" by K. Barney, n.d., Presented at the Missouri Hospice and Palliative Care Association. Retrieved from www.mohospice.org. In the public domain.

According to Bryk (2010), for an initiative to be successful, there must be "a modicum of doubt—a critical perspective—about the wisdom of any particular reform effort" (p. 30). Standardized patient programs are time and labor intensive (Ulrich & Mancini, 2014). The expense of launching an SP program may increase the overall cost of education, escalate the average student debt, and reduce the diversity of the applicant pool (Brown, 2016) in institutions. Besides, assessing student performance can be difficult in the absence of curricular themes that reflect uniform competencies in simulation-based learning (Jeffries, 2008). Several factors may deter the faculty from uniting behind a plan to support creative fieldwork offerings in simulation. Some of these include:

- lack of substantive and specific mandates for use of SPs at the institutional level (Ulrich & Mancini, 2014);
- inadequate time, infrastructure, and resources to sustain the SP program (e.g., equipment such as hospital beds, wheelchairs, including software for electronic medical charting [Nehring & Lashley, 2010]);
- limited evidence in health professions that demonstrates lasting effects of simulation on service quality and patient safety (Miller et al., 2012);
- logistical issues including SP scheduling and coordination (Smith & Lammers, 2014);
- cultural challenges and lack of diversity in the SP pool (e.g., potential backlash from the community if Caucasian actors are asked to portray the role of African American patients [Brundage, 2011; Ulrich & Mancini, 2014]);
- organizational factors such as systemic constraints and institutional culture that deter consensus building and educational innovation (Smith & Lammers, 2014);
- limited funding to hire SPs, trainers, and facilitators (Ulrich & Mancini, 2014);

- professional background, experience, and credentials of educators and support staff required to run a successful SP program (Smith & Lammers, 2014);
- design of the SP program including planning and execution of case scenarios with fidelity and attention to detail (Ulrich & Mancini, 2014);
- structure of the debriefing and feedback offered to students by the instructors, peers, and the SPs (May, 2006; Wallace, 2006); and
- instances of reduced complexity of training in simulation that do not reflect current trends in actual clinical practice (Parker et al., 2015).

These issues can significantly influence educator commitment toward SP training. The large majority of the current OT workforce underwent entry-level experiential training with real patients in situations that did not involve much simulation. Practitioners who were trained in conventional learning environments may have polarizing views about innovative approaches in fieldwork education (Kise, 2014). For many educators and practitioners, the introduction of simulation in clinical training could raise a series of ethical concerns. For instance, patients and the general public may want health care practitioners to have more experience training with actual people instead of mannequins or SPs (Smith & Lammers, 2014). The introduction of simulation in Level I OT fieldwork (ACOTE, 2018) may reduce the time spent by students interacting with actual patients in contemporary settings. There is also an inherent risk that students may not take the simulation seriously. If they are not interacting with real patients, they may find it hard to immerse in the learning experiences (Smith & Lammers, 2014).

Variability in SP performance may influence the student decision-making process and their ability to temporarily suspend disbelief in simulated contexts (Ulrich & Mancini, 2014). If SPs fail to enact the scenario as scripted, students may feel frustrated and confused about how to respond effectively. Repeated exposure to SPs over time can result in mixed perceptions about

the benefits of simulation education. Students with prior exposure to the same pool of actors, who portrayed different clinical scenarios in the past, may report reduced realism (Giesbrecht, Wener, & Pereira, 2014). Stumbling across SPs in a different context such as the school cafeteria, bookstore, or restroom could reduce the simulation fidelity in labs (Bennett et al., 2017; Ulrich & Mancini, 2014). Recasting the same group of SPs in different situations may require advanced adaptations in case complexity and patient portrayal to maintain the fidelity of the simulation (Giesbrecht et al., 2014). For instance, the use of assorted theatrical props and elaborate moulage could help transform actors' appearances significantly.

Despite these problems, simulation can be an avenue to provide valuable hands-on experiences to students. Psychomotor learning is highly beneficial for successful implementation of patient safety standards in the workplace (Ganley & Linaard-Palmer, 2012; Smith & Lammers, 2014). Simulation-based education incorporates the six principles of the Made to Stick's Success model, as described by Heath and Heath (2007), for resolving problems through a solution-focused approach. This model describes six traits: (a) keeping things simple, (b) unexpected, (c) concrete, (d) credible, (e) emotional, and (f) narrate stories as pedagogical practices (Heath & Heath, 2007). Interacting with SPs allow students to connect with the curricular topics using analogous methods that hook their attention. Simulations involving unforeseen sensory experiences that include factitious syringes, concocted body fluids, and other biohazardous waste may be hard to forget (Heath & Heath, 2007). Simulation may also be tailored to teach students about the impact of socioeconomic factors including health insurance coverage on patient care. It can help students understand the value of ethical judgment, moral reasoning, and professionalism (Northouse, 2013), especially in instances where they may be coerced to alter their professional recommendations (Slater, 2006). Despite the frustrations associated with inconsistent SP performance, students may learn to find patterns that integrate

knowledge with practice (Ulrich & Mancini, 2014). Faculty may use simulated experiences to scaffold curricular themes and advance student knowledge about medico-legal issues and ethical challenges in contemporary health settings.

Summary

Non-cognitive factors including motivation, self-regulation, and social engagement may impact the students' success during fieldwork. These non-cognitive factors serve as mediating variables that influence students' emotional buy-in and sensemaking capacities during professional learning. Exposure to stress, poverty, and emotional insecurity in early childhood can negatively influence students' attention, executive functions, and metacognitive abilities (Jensen, 2009). Students from low-income households may experience anxiety over innovative training methods and assessments used to evaluate performance. Educators need high empathy and emotional resilience to help students manage their anxiety during clinical training (Humphrey, 2013). They should possess a comprehensive understanding of the existing challenges in the design and implementation of SP programs (Ulrich & Mancini, 2014). They must grade the simulation tasks appropriately and allocate adequate time for students to express their frustration with simulation (Nielsen & Harder, 2013).

According to Heath and Heath (2010), "what looks like a person problem is often a situation problem" (p. 180). Altering the environment and human capital may improve the quality of workplace training. Standardized patient programs can help students be better prepared for fieldwork in medical facilities. High-fidelity simulation can help leverage the advantages of professional learning in both conventional and nontraditional environments (Kise, 2014). Additional research that compares training in simulation-based programs with traditional and role-emerging fieldwork placements may steer efforts for future innovation. Focusing on attributes of human resilience, creativity, and self-efficacy can motivate stakeholders to work

collaboratively for the greater good (Balfanz, 2019a). A growth mindset that encourages "failure as an opportunity to recognize and learn from errors in thinking or acting" will help the school community plan and organize resources collectively for future success (Farrington, 2014, p. 25).

Chapter 4

Research Procedure and Program Evaluation Methodology

A finite number of opportunities and resources are available for experiential learning in OT education (Estes & Brandt, 2011; Tomson & Proctor, 1990). Due to the exponential increase in the number of OT academic programs nationwide, availability of fieldwork placements has declined by 21% (Evenson et al., 2015). Academic programs often use nontraditional, community-based placements for OT fieldwork particularly for training in mental health (Hengel & Romeo, 1995). As discussed in the needs assessment in Chapter 2, students report low levels of satisfaction with fieldwork placements in role-emerging settings. As a result of limited opportunities to interact with OT practitioners at nontraditional sites (Heine & Bennett, 2003), students' professional identities and subject-specific knowledge may be prematurely challenged. Professional issues including low reimbursement and fewer employment opportunities may also deter students from pursuing fieldwork in role-emerging settings (Overton et al., 2009). A workforce survey by the AOTA (2015a) found that only two percent of the respondents were employed in nontraditional practice areas. Besides, the rate of compensation in role-emerging settings has declined by negative 1.5% within the past decade (AOTA, 2015a).

Following in the footsteps of experiential models in medicine and nursing, ACOTE (2018) recently approved SP programs and simulation-based training for the introductory Level I OT fieldwork. Academic programs in medicine and nursing have increasingly utilized high-fidelity simulation to address similar shortages in clinical placements since the 1990s (Hayden et al., 2014; May, 2006; Parker et al., 2015). Simulation techniques including technology, mannequins, haptic devices, and SP programs comparable in rigor can substitute Level I fieldwork (ACOTE, 2018). Level I fieldwork training in OT was mostly offered in traditional and role-emerging practice areas until the 2019-2020 academic year. However, some health

professions like physical therapy have not incorporated any simulation-based training in their curriculum. Differing from the ongoing advances in simulation-based education, physical therapy proposes an active, integrated model for the purpose of clinical training (Pritchard, Blackstock, Nestel, & Keating, 2016). The profession predominantly recommends professional practice experiences in clinical settings for clerkships (Smith & Crocker, 2017). According to the Commission on Accreditation in Physical Therapy Education (CAPTE, 2017), "Integrated experiences cannot be satisfied with patient simulations or the use of real patients in class; these types of experiences are too limited and do not provide the full range of experiences a student would encounter in an actual clinical setting" (p. 20). Skill acquisition is promoted by introducing students early to real-life patients during their didactic coursework (Hakim et al., 2014).

The Context

Daytona State College (DSC, 2020) is a public college located in the city of Daytona Beach, Florida. The College of Health and Public Services, located on the college's main campus, has offered professional training in both physical therapist assistant and occupational therapy assistant programs since the mid-1990s. The college has seven satellite campuses that primarily serve the residents of Volusia and Flagler counties in central Florida. The Daytona Beach metropolitan area is classified as urban with a high population of individuals that experience deep poverty, unemployment, and crime (Hamblin, 2018; Osinski, 2018). According to the U.S. Census Bureau, deep poverty is defined as living in a household where the total income is at least 50% below the federal poverty line (Lei, 2013). Since 1957, DSC has served students from the formerly segregated Caucasian and African American junior colleges. These segregated academic institutions co-existed in Florida between 1949 and 1966 (Smith, 1994). Although the college's student body is largely Caucasian, the school prides itself in being an

anchor for students from various backgrounds, including international students and minorities from low-income households (DSC, 2016). With declining revenues and dwindling enrollment across the higher education sector (Kelderman & Gardner, 2019), DSC is tapping into creative methods to reinvent its programs across all its campuses. The disruptive impact of COVID-19 (Association of American Medical Colleges [AAMC], 2020) on degree completion has accelerated the need for developing resources that supplement clinical teaching.

The College of Health and Public Services in collaboration with DSC's Theater department and the School of Arts are in the process of developing an SP program. The college currently houses a human simulation program called Patient Simulation Learning Outcomes Laboratory (DSC, 2020). This lab includes a 4600-square-foot space located in the basement of the College of Health and Public Services. The lab is largely mannequin-based but has human patient simulators with advanced features that add realism to clinical teaching. To improve the fidelity and authenticity of the simulation (Ulrich & Mancini, 2014), the school is in the early phase of developing an SP program. The primary purpose of the SP program is to improve student learning and target the ongoing shortages of experiential learning opportunities across health programs (Casares et al., 2003; Hayden et al., 2014; Parker et al., 2015).

Statement of Purpose

The implementation of simulation in health professions has increased worldwide (Pritchard et al., 2016), but the cost associated with using SPs can be high (Ulrich & Mancini, 2014). It is therefore critical that academic programs examine stakeholder perceptions about SP training before making huge investments in developing high-fidelity simulation programs. These stakeholders primarily include students, faculty, fieldwork educators, potential employers, and other clinical liaisons who collaborate within professional learning communities dedicated to fieldwork education (Costa, 2015). A planned and detailed investigation about simulation

effectiveness can be beneficial in analyzing whether the expense involved could potentially complement the perceived benefits and outcomes associated with high-fidelity simulation. A shared inquiry on what and how students learn during simulation training and contemporary field placements can help maximize the time available for effective instruction (Calvert, 2016; Hill et al., 2010).

This chapter describes a mixed methods study that compared stakeholder perspectives about SP training with fieldwork experiences in traditional and role-emerging placements. A formative evaluation approach (Newcomer, Hatry, & Wholey, 2010) was originally planned to measure stakeholder perceptions about the training opportunities in Level I fieldwork in: (a) traditional medical settings; (b) role-emerging practice; and (c) simulation with SPs. Given that students are the primary beneficiaries of fieldwork education, the researcher included students as key participants in the quantitative strand of the study. Interviews with OT faculty, fieldwork educators, and potential employers were conducted during the qualitative phase. A comparative exploratory analysis between different Level I training formats formed the basis of the program evaluation (Leviton & Lipsey, 2007). The research questions for this investigation targeted both the process and outcome evaluation measures. The research questions included:

Process Evaluation Research Questions:

RQ1. To what extent were each of the fieldwork program elements implemented as planned in traditional, role-emerging, and simulated settings?

RQ2. What are the students' perceptions of design elements of fieldwork experiences in traditional, role-emerging, and simulated settings?

RQ3. What are the students' perceptions of educational practices during fieldwork in traditional, role-emerging, and simulated settings?

RQ4. How do stakeholders such as faculty, fieldwork educators, and potential employers perceive student fieldwork experiences in traditional, role-emerging, and simulated settings?

Outcome Evaluation Research Questions:

RQ5. How do students perceive their satisfaction with learning during fieldwork experiences in traditional, role-emerging, and simulated settings?

RQ6. How do students perceive their self-confidence with learning during fieldwork experiences in traditional, role-emerging, and simulated settings?

Research Design

The researcher proposed a mixed methods study using the convergent, parallel design (Creswell & Plano Clark, 2011) for the investigation. The researcher decided to gather data from multiple sources to illuminate different vantage points about the problem of practice and potential solutions (Learning Forward, 2011; Raphael et al., 2014). To avoid any conflicts of interest, students enrolled in the researcher's parent institution, Daytona State College, were not recruited in the study. Instead, the researcher planned on recruiting students from another OT assistant program, AdventHealth University, for the quantitative phase of the study. The faculty members from both programs met and agreed to a shared inquiry contingent upon approval from the respective institutional review boards (IRBs). A research-based collaboration between both programs could likely guide the schools in new program implementation (Calvert, 2016; Hill et al., 2010). The researcher arranged to conduct interviews with faculty, fieldwork educators, and potential employers from both institutions for the qualitative phase of the study.

AdventHealth University (AHU, 2019) is located about 50 miles west of Daytona State College. The university is a Seventh-day Adventist institution whose mission is to develop "skilled professionals who *live* the healing values of Christ" (para. 1, emphasis in original). The

institution's vision is centered around "transforming the science and practice of whole-person care and developing influential professionals of uncommon compassion" (AHU, 2019, para. 2). The school offers OT training at both the graduate and undergraduate levels. AdventHealth University has a state-of-the art simulation center which is located on the second floor of the Graduate Building. The center has a multidisciplinary focus for subject-specific training and interprofessional education opportunities. Undergraduate students in nursing, radiography, nuclear medicine technology and graduate students from both physical and occupational therapies use the simulation. Foreign-trained nurses and those pursuing advanced credentialing within the AdventHealth Hospital Systems are also trained at the simulation center.

Each laboratory inside the simulation center can accommodate one or more human patient simulators, including SPs. The laboratory rooms have functioning headwalls for suction, oxygen, and air (see Figure 4.1). They have several ceiling-mounted cameras that capture live feed and relay it to the control rooms. The control rooms have computer stations for simulation technologists and instructors. There is adequate storage space for equipment such as infant, child, adult simulators, haptic devices, mannequins, simulators, AV infrastructure, moulage and other supplies. The university has a separate facility for recruiting, auditioning, and training SPs located in Casselberry, Florida. The simulation center has a detailed planning process that includes experts, faculty, facility engineers, tech security, and students with prior experience in simulated learning environments. Several of the center's staff hold certifications in health care simulation and routinely attend professional development activities to support best practices in the use of simulation. These partnerships and interdisciplinary collaboration have allowed for a rather fluid integration of simulation programs with the OT curricula. The instructors can also consolidate and create hybrid simulations that include a combination of SPs, mannequins, and haptic devices to create complex learning experiences.

Figure 4.1. The simulation rooms at AdventHealth University Graduate Building. Reprinted from "AdventHealth University Simulation Center" by AdventHealth University, 2021 (https://www.ahu.edu/facilities/Orlando). In the public domain.

Process Evaluation

Several underlying processes influence the quality of a fieldwork experience. These processes can be broadly categorized into three components: (a) an environmental component focused on contextual supports and barriers; (b) a training component that includes mentorship provided by fieldwork educators to students; and (c) a curricular component to ensure coherence between the curriculum design and experiential training (Costa, 2015). Developing SP programs are often challenged with limited resources; therefore, all process evaluation questions (see Appendix H), indicators, and methods were carefully considered. Factors such as staffing, educator preparedness, available physical space, resource allocation, student orientation, and opportunities for debrief are critical to the success of every fieldwork program (Costa, 2015). For

the purpose of this study, the process evaluation focused on the following indicators: (a) implementation of the program; (b) context and participant responsiveness; and (c) barriers to implementation.

Implementation of the program. The program implementation included a combination of the following components: (a) reach or level of participation; (b) dose or extent of the program delivered and received by students; and (c) the program fidelity to measure whether the program was implemented as originally planned (Linnan & Steckler, 2002). These process evaluation components were crucial to assess if all the components of the fieldwork training including the inputs and activities were carried out, and how well were they executed to influence the desired outcomes (Nelson, Cordray, Hulleman, Darrow, & Sommer, 2012).

Indicator for reach or level of participation. The proportion of students who completed training in each of the three distinct trainings was used as an indicator to gauge the reach or level of participation.

Indicator for dose. The time set by the academic program for students to complete each of the experiential trainings served as an indicator of the quantity of the intervention or the dose delivered. Student exposure and satisfaction with the training formats referred to the degree to which the participants were actively engaged and receptive during the trainings.

Indicator for program fidelity. Adherence to the program design and component differentiation were used as indicators to measure the fidelity. Program adherence refers to the degree to which the training components were delivered as originally conceptualized. The extent to which the training formats were distinguishable from each other was a measure used to evaluate component differentiation (Baranowski & Stables, 2000).

Context and participant responsiveness. The context includes a combination of physical, economic, social, and political factors in an organization that are likely to influence the

implementation of the program (Linnan & Steckler, 2002). For instance, funds available to obtain moulage and simulation technology can enhance the realness of the simulation, which in turn may influence participant responsiveness. In this study, participant responsiveness was measured using students' perspectives of design elements, educational practices and reported confidence levels while training in the different formats (Dusenbury, Brannigan, Falco, & Hansen, 2003).

Barriers to program implementation. The barriers to program implementation were potential issues related to student attrition, scheduling conflicts, inclement weather, or additional time required for orienting students to clerkships. These issues were taken into account as there were inherent risks that participation interest in the research study could drop suddenly. Selected process evaluation components and their alignment to the logic model are summarized in Appendix I.

Outcome Evaluation

Two short-term outcomes were measured: students' satisfaction and reported self-confidence with training available in distinct contexts. Quantitative data included student ratings on the Student Satisfaction and Self-Confidence in Learning Scale, discussed later in the chapter. The semi-structured interviews explored faculty, fieldwork educators and potentially employers' dispositions about student satisfaction and self-confidence with clerkships in different contexts.

Methods

For the quantitative phase of the investigation, the researcher planned to recruit students enrolled at AdventHealth University during the 2019-2020 academic year. The students were in the OT assistant program and taking didactic courses while concurrently attending Level I fieldwork. Faculty, fieldwork educators and potential employers from both AdventHealth University and Daytona State College were contacted to participate in the qualitative strand.

Institutional review board approvals from three institutions—AdventHealth University, Daytona State College, and Johns Hopkins University—were obtained prior to recruiting any participants. The inclusion criterion for the quantitative phase of the study was that student participants would actively engage in workplace training in three distinct settings: (a) traditional fieldwork; (b) a role-emerging placement; and (c) an SP program, for at least 10 hours each. Students with prior exposure to simulation in another academic program and those with out-of-sequence academic progression were to be excluded from the study. There were no specific inclusion or exclusion criteria for the qualitative strand of the study. To participate in the qualitative study, one had to be either a faculty member, fieldwork educator, or employer affiliated with an OT assistant program. Faculty, fieldwork educators and employers were not required to have direct, first-hand experience in the distinct training contexts. A logic model (see Figure 4.2) was designed to illustrate the proposed analyses and possible outcomes of the study. The design and implementation of the distinct fieldwork formats served as the key inputs for the logic model. The research questions were in alignment with the inputs, outputs, activities, and outcomes of the logic model. Both the quantitative and qualitative phases of the study were equally relevant. The first phase involved quantitative data collection from student participants using reliable and valid tools obtained with permission from the National League of Nursing (NLN, 2005). These instruments, discussed later in the chapter, helped carry out an in-depth evaluation of student-centered learning based on training opportunities available in traditional settings, role-emerging practice, and a university-based SP program.

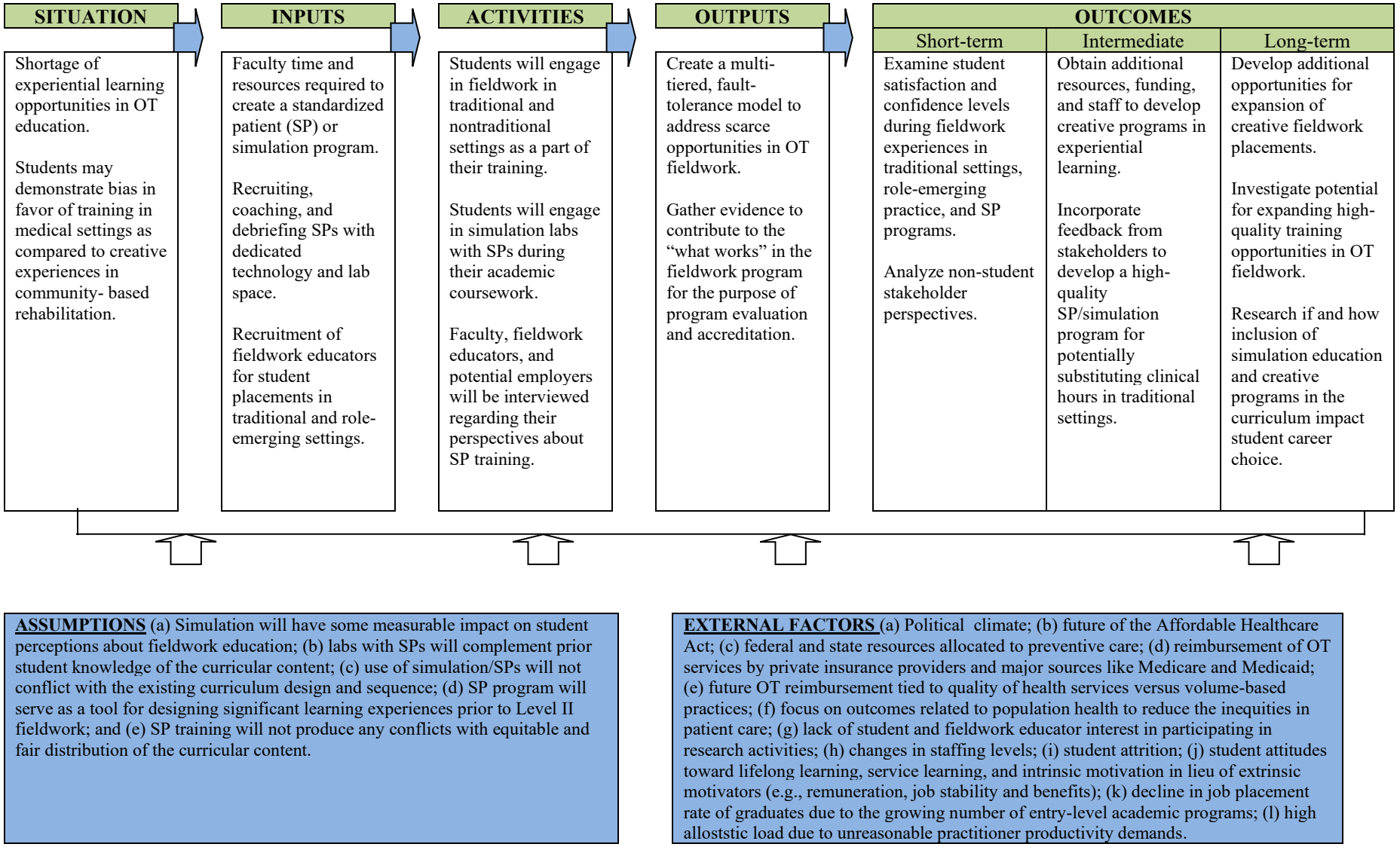

Figure 4.2. Logic model and external factors and assumptions related to the model

A qualitative approach involved interviews with non-student stakeholders such as faculty, potential employers, and fieldwork educators. The qualitative interviews were planned alongside the quantitative data collection. Combining data from both the qualitative and quantitative strands would potentially allow the researcher to corroborate data from the NLN (2005) instruments and gain deeper understanding of stakeholder perspectives regarding the distinct forms of training. Triangulation of both the quantitative and qualitative data would support treatment integrity and participant enrichment (Collins, Onwuegbuzie, & Sutton, 2006). A similar study by Parker et al. (2015) in nursing education compared training in two contexts—traditional and simulated settings. They found mid- to large-effect size differences between traditional and simulated settings, when comparing student perceptions of educational practices (d = .55) and student satisfaction (d = .87) between traditional and simulated settings.

The researcher collected both the qualitative and quantitative data during the Spring 2020 term. Using a parallel convergent approach, the data obtained from the two strands were analyzed separately before being merged (Creswell & Plano Clark, 2011). Any incoherence between the qualitative and quantitative strands of measurement was used to reveal additional insights about the problem of practice (Burch & Heinrich, 2016). The null hypothesis of the study was that there is no difference in student perceptions about Level I experiential learning in simulated, role-emerging, and traditional settings. A priori sample size calculation using G* Power 3.1.7 revealed that to obtain a mid-size effect (d = .5), the researcher must recruit at least 21 student participants for an estimated power value of 80%. The next section of this chapter outlines details about the participants, instruments including process and outcome evaluation measures for the study. A Summary Matrix (see Appendix J) also provides an overview for the research methods utilized.

Participants

After securing the approvals from the respective IRBs, the researcher contacted a total of 28 students from AdventHealth University's OT assistant program for the quantitative strand of the study**.** These students were in the fourth out of the six-semester OTA program. During the Fall 2019 term, the researcher collaborated with the OTA program faculty and visited the students' classroom in-person for the purpose of recruitment. The researcher explained the purpose of the investigation including the eligibility criteria for participation. Twenty-eight students provided consent for the research study (see Appendix K). Each of the 28 surveys were opened, but only 27 students (n = 27) completed the entire survey, yielding a response rate of 96%. The demographic details of the student participants are included in Tables 4.1 and 4.2.

Table 4.1

Demographic characteristics of student participants recruited

Characteristic	Number of participants (n = 27)
Gender	
Male (%)	4 (14.8%)
Female (%)	23 (85.1%)
Age in years	
18-24 (%)	10 (37.0%)
25-34 (%)	9 (33.3%)
35-44 (%)	6 (22.2%)
45-54 (%)	1 (3.7%)
55-64 (%)	1 (3.7%)
Prior academic credential attained	
Associate	6 (22.2%)
Bachelor	8 (29.6%)
Some College	7 (25.9%)
High School	5 (18.5%)
Trade or technical school	1 (3.7%)
Prior exposure to simulation with SPs	
Yes	2 (7.4%)
No	25 (92.5%)

Table 4.2

Prior work experience and Level I fieldwork settings reported by student participants

Characteristic	Reported Experiences
Prior work or volunteer experience	Shadowed OT practitioners Worked as chiropractic assistant Volunteered in hospital, school or nursing home Worked as a nursing assistant or private caregiver Licensed as a massage therapist Employed in sales, retail or at a local amusement park Experienced as an activity director for older adults
Type of Level I field settings	Skilled nursing facility/long-term care/assisted living Outpatient clinic Acute inpatient hospital University-run community clinic Homeless shelter/foster care home/adult day care/ transitional housing unit

Each student participant completed experiential training in the following training formats: (i) SP program, (ii) traditional field placement, and (iii) role-emerging setting. Participation was voluntary and the participants were notified that they have the right to withdraw from the study at any time. Criterion sampling (Patton, 1990) was used to recruit the student participants as follows:

- Inclusion criteria: (i) enrolled in clinical practicum courses during the 2018-2019 and 2019-2020 academic years at AdventHealth University; (ii) completed at least 10 hours of training in each format: SP program, traditional fieldwork, and role-emerging placement.
- Exclusion criteria: (i) prior exposure to simulation in an academic program other than OT assistant; (ii) out-of-sequence academic progression.

In addition, six non-student participants—two faculty members, two potential employers, and two fieldwork educators (n = 6)—were recruited to participate in semi-structured interviews

for the qualitative phase of the investigation. The faculty members, potential employers, and fieldwork educators were affiliated with either AdventHealth University or Daytona State College's OT assistant program. They had at least 4 years of experience in the profession. One of the participants reported having 25 years of experience in the field. The participants did not receive any compensation. Based on the criteria outlined by the Florida Board of Occupational Therapy (2018), the faculty, employers, and fieldwork educators were awarded continuing education credits for their contribution to the research activity. Demographic details about the non-student participants is included in Table 4.3.

Table 4.3

Demographic characteristics of the non-student participants for the qualitative phase

Characteristic	Number of participants (n = 6)
Gender	
Male (%)	1 (16.6%)
Female (%)	5 (83.3%)
Professional Designation	
Faculty	2 (33.3%)
Fieldwork Educator	2 (33.3%)
Director of Rehabilitation	2 (33.3%)
Prior exposure to simulation with SPs	
Yes	0 (0%)
No	6 (100%)

Instrumentation for the Quantitative Phase

Three instruments obtained from the NLN (2005) were modified to collect quantitative data from students. A survey was designed with introductory questions about the student participants' gender, age group, level of study, expected degree level, anticipated year of

graduation, and type of fieldwork settings. Information about previous work or volunteer experience, including prior exposure to simulation, was also requested from the student participants. The demographic items were linked to measures from three survey instruments: (a) the Simulation Design Scale, (b) Educational Practices Questionnaire, and (c) Student Satisfaction and Self-confidence Learning, adapted from the NLN (2005) assessments. The NLN (2005) has pre-authorized all researchers to use these instruments free of cost.

These instruments use a Likert scale ranged from 1 to 5 for all survey items. A rating of 1 indicates the participant *strongly disagrees* with the statement whereas that of 5 means that the participant *strongly agrees* with the statement. The validity and reliability of these instruments has been well-established in nursing literature (Jeffries & Rizzolo, 2006; Unver et al., 2017). These instruments were originally developed to analyze student experiences in simulated contexts (Jeffries & Rizzolo, 2006), but were later modified to examine perspectives of learning in related settings (Parker et al., 2015). The researcher reached out to one of the authors, Dr. Mary Anne Rizzolo, seeking permission to adapt the instruments (Appendix O). Some examples of the original items and the modified versions are depicted in Table 4.4.

Table 4.4

Modified items from the NLN (2005) instruments for the proposed analyses

Original item on the NLN (2005) instruments	Modified item for traditional training	Modified item for role-emerging/nontraditional fieldwork
I was encouraged to explore all possibilities of the simulation.	I was encouraged to explore all possibilities of the training.	I was encouraged to explore all possibilities of the training.
Using simulation activities made my learning time more productive.	Using the training activities made my learning time more productive.	Using the training activities made my learning time more productive.
I am confident that this simulation covered critical content necessary for the mastery of medical surgical curriculum.	I am confident that this training covered critical content necessary for the mastery of the entry-level OT/ OT assistant curriculum.	I am confident that this training covered critical content necessary for the mastery of entry-level OT/ OT assistant curriculum.

Simulation Design Scale. The Simulation Design Scale (NLN, 2005) is a 20-item instrument that was originally devised to evaluate students' perceptions of the design of the simulated learning. This scale includes survey items broadly classified under categories such as feedback, clear presentation of objectives, problem-solving, faculty support, and fidelity (see Appendix L). Some sample questions on the adapted simulation design scale include: (i) There was enough information provided at the beginning of the training to provide direction and engagement; (ii) I felt supported by the instructor's assistance during the training; and (iii) The training allowed me the opportunity to prioritize occupational therapy assessments and care. Two items under the fidelity section of the scale did not apply to either role-emerging or traditional fieldwork sites. Two items—"The scenarios resembled real-life situations" and "Real life factors, situations, and variables were built into the simulation scenarios"—were included for simulated learning experiences only. Reliability testing using Cronbach's alpha revealed a coefficient of .92 for the modified Simulation Design Scale.

Educational Practices Questionnaire. The Educational Practices Questionnaire (NLN, 2005) is a 16-item instrument that evaluates student perceptions of best practices in simulated learning. The items are arranged under the broad categories of active learning, collaboration, diverse ways of learning, and high expectations (see Appendix M). Sample questions on the modified educational practices questionnaire were: (i) During the training I had the opportunity to discuss the ideas and concepts taught in the course with the instructor and other students; (ii) I had the chance to work with my peers during the training; (iii) The training offered a variety of ways in which to learn the material; and (iv) My instructors communicated the goals and expectations to accomplish during the training. The Cronbach's alpha coefficient for the adapted Educational Practices Questionnaire's reliability was found to be .86 (Jeffries & Rizzolo, 2006).

Student Satisfaction and Self-Confidence in Learning. The Student Satisfaction and Self-Confidence in Learning (NLN, 2005) is a 13-item scale which measures students' perceived satisfaction and confidence with the learning experience (see Appendix N). Sample items on the modified Student Satisfaction and Self-Confidence in Learning scale include: (i) The way my instructors taught during this training was suitable to the way I learn; (ii) The teaching materials used in this training were motivating and helped me to learn; (iii) I am confident that I am developing the skills and obtaining the required knowledge from this training to perform necessary tasks in a clinical setting; (iv) I know how to get help when I do not understand the concepts covered in this training (NLN, 2005). Reliability test using Cronbach's alpha revealed a coefficient of .94 and .87 for the student satisfaction and self-confidence sections respectively on the adapted Student Satisfaction and Self-Confidence in Learning scale.

Measures for the Qualitative Phase

Faculty, fieldwork educators, and potential employers were contacted separately to consent for the qualitative phase of the investigation (see Appendix K). At the onset of the interviews, demographic data including gender, professional title, designation, number of years of experience, and prior exposure to simulation training was collected from the non-student participants (i.e., faculty, fieldwork educators and potential employers). The researcher administered all invitations to ensure confidentiality.

The following questions were included in the semi-structured interviews with faculty, fieldwork educators, and potential employers:

1. What did you think about using simulation with standardized patients as an alternative to Level I fieldwork in role-emerging or traditional settings?
2. How do you feel about students interacting with the standardized patients for their Level I fieldwork training?

3. In your opinion, what do students perceive about the educational practices during fieldwork in traditional facilities, role-emerging settings, and standardized patient programs? (Cue: Provide interviewee NLN (2005) instruments in advance)
4. In your opinion, what do students perceive about the design elements of fieldwork in traditional facilities, role-emerging settings, and standardized patient programs? (Cue: Provide interviewee NLN (2005) instruments in advance)
5. In your opinion, how confident do students feel during fieldwork experiences in traditional facilities, role-emerging settings, and standardized patient programs? (Cue: Provide interviewee NLN (2005) instruments in advance)
6. In your opinion, how satisfied are students with learning during fieldwork in traditional facilities, role-emerging settings, and standardized patient programs? (Cue: Provide interviewee NLN (2005) instruments in advance)
7. Do training experiences with standardized patients help students learn? How? If not, why?
8. What do you think about the features included during standardized patient training?
9. Do the standardized patients help in making the content in the textbooks, lectures, and labs 'stick'? Please explain.
10. Describe some positive features of the standardized patient program, traditional fieldwork, and role-emerging placements.
11. Describe any negative attributes of the standardized patient program, traditional fieldwork, and role-emerging placements.

12. If students' Level I fieldwork was primarily conducted in simulated settings, what are some potential issues they could encounter when they enter the profession? Can you think of any strategies the field could use to address these issues?
13. Do you think students with fieldwork experiences in mostly simulated environments or nontraditional settings require additional mentoring when they land their first entry-level job in mainstream OT practice?
14. What patient or client care skills should be included during Level I training in simulated, traditional, and role-emerging settings?
15. In your opinion, what percentage of Level I fieldwork should be conducted in simulated, traditional, and role-emerging settings?

Procedure

This section includes details about the research study, data collection, data management, and analyses. The research questions drove the methodology, instrumentation, and data analysis procedures for this investigation (Onwuegbuzie & Leech, 2006).

The Study

The purpose of the study is to examine students' and stakeholders' perceptions about traditional fieldwork, role-emerging practice, and SP programs to gain rich, in-depth knowledge of their experiences. The NLN (2005) and Jeffries (2005) recommended three broad dimensions to streamline the scope of the study. These dimensions include:

- Design elements: These include constructs such as instructor feedback, presentation of objectives, fidelity, support, and problem-solving that help in examining the role of the educator as a facilitator during the learning experience (Parker et al., 2015).
- Educational practices: Active learning, collaboration, diverse learning methods, and pre-established performance criteria are known to promote excellence in workplace education

(Jeffries, 2005). These practices help in understanding context-driven and content-related factors in learning environments (Choi & Hannafin, 1995).

- Student satisfaction and confidence: Student agency and motivational orientation—intrinsic, extrinsic, or mixed—is contingent upon their beliefs about performance outcomes (Weiner, 2010). Student perceptions about the authenticity and relevance of a learning activity including the expected levels of success may influence their motivation to learn (Fishbein & Ajzen,1975; Wigfield & Eccles, 2000). Student confidence, level of satisfaction (Weaver, 2011), and future professional preferences (Chiang et al., 2013) are dependent on their perspectives about their learning experiences.

Data Collection

Upon receiving approval from the respective IRBs, the researcher contacted the director of the OT assistant program at AdventHealth University, Ms. Vicki Case, to disseminate recruitment material to prospective participants. The researcher ensured that prior permissions were in place before modifying the NLN (2005) instruments for OT learning contexts (see Appendix O). During the Spring 2020 term, the survey items from the modified NLN (2005) instruments were transcribed into Qualtrics survey software. Most of the faculty, fieldwork educators, and potential employers were interviewed remotely using Zoom. Only one interview was conducted in-person at the AdventHealth University's Orlando campus. The researcher maintained an interview guide and a reflexive journal to document his thoughts about the research process. The interviews were transcribed verbatim using the electronic software Wreally. Table 4.5 outlines the data collection timeline.

Table 4.5

Data Collection Timeline

Activity	Description	Timeline and Duration
Simulation Design Scale	Students completed the 20-item instrument electronically about their experiences in: (a) traditional fieldwork, (b) role-emerging practice, and (c) SP training.	January 2020: 6-10 minutes for each training.
Educational Practices Questionnaire	Students completed the 16-item instrument virtually to identify their perceptions of best practices during experiential training.	January 2020: 6-10 minutes for each training.
Student Satisfaction and Self-Confidence in Learning	Students rated their perceived satisfaction and confidence with the learning experiences on this 13-item scale virtually.	January 2020: 6-10 minutes for each training.
Interviews	Faculty, potential employers, and fieldwork educators interviewed using pre-determined questions on an interview guide.	February and March 2020: 50 minutes approximately per interview.

Data Management

All consent forms were stored securely in a private office. There were no sensitive questions included on the surveys or interviews. The student participants were assigned a confidential participant number. Individual students were not identified. The names of faculty, fieldwork educators, and employers were edited from data sources and replaced with a pseudonym. All of the data collected was stored in password-protected files on a secure drive located on the researcher's computer. The files will be permanently deleted after the dissertation

is written. Tangible artifacts such as interview transcripts and interview videos were stored securely inside a locked cabinet located at the researcher's work office.

Data Analysis

This section outlines the statistical tests and coding procedures used to analyze the quantitative and qualitative data respectively. The procedures used for merging the findings from both the strands of the study are also included.

Quantitative analyses. Since items were modified from the original NLN (2005) instruments, the validity of the instruments was calculated using Cronbach's alpha in SPSS. The quantitative data obtained from the student ratings on the modified Simulation Design Scale, Educational Practices Questionnaire, and Student Satisfaction and Self-Confidence in Learning (NLN, 2005) was analyzed using the non-parametric Friedman test and the Wilcoxon signed rank test in SPSS. The Kendall's coefficient of concordance (W) statistic was calculated to report effect size values.

Qualitative analyses. After reviewing the interview transcripts, the qualitative data from the interviews were analyzed using the thematic analysis framework provided by Braun and Clarke (2006). As per the recommendations of this six-phase framework, the researcher took the following steps: (a) familiarized self with the data; (b) generated initial codes; (c) looked for themes; (d) reviewed themes; (e) defined themes; and (f) documented the themes (Braun & Clarke, 2006). Thematic analysis was conducted at the inductive level, whereby the researcher did not impose any theoretical frameworks or concepts that were not suggested by the participants. The themes were further refined using the saliency analysis guidelines suggested by Buetow (2010). The researcher utilized the following saliency matrix to determine if the initial codes were:

- highly important (HI) and recurrent (HR);

- HI but not recurrent (LR);
- not HI but recurrent (HR);
- not HI and not recurrent (LR) [Buetow, 2010, p. 124]

The researcher read the data several times before developing initial codes. Preliminary themes that emerged from the codes were reviewed and modified based on relevance, application, and hierarchy. Member checking was used to establish qualitative validity. A subset of the research participants were provided with copies of the researcher's interpretations to verify whether the findings accurately portray their experiences. A merged data analysis display was developed to report the qualitative and quantitative findings (Creswell & Plano Clark, 2011).

Chapter 5

Findings and Discussion

The purpose of this chapter is to discuss the results of a mixed methods investigation that examined stakeholder perspectives of Level I fieldwork opportunities in OT education. A mixed methods, exploratory design was intentionally planned to help minimize the threats to statistical conclusion validity (Creswell & Plano Clark, 2011). The pragmatist worldview of the mixed methods research is well-suited to the nature of the problem of practice. The research is problem-oriented and directed towards the creation of sustainable alternatives to Level I OT fieldwork that match the needs of adult learners. The investigation occurred during the Fall 2019 and Spring 2020 trimesters at AdventHealth University's campus located in Orlando, Florida. The research questions, including both the process and outcome evaluation measures, inform the findings and discussion sections of this chapter. The chapter culminates with limitations and implications for future research and practice.

The study unfolded in two phases. The first phase involved gathering quantitative data from AdventHealth University's OT assistant students (n = 27). During the Fall 2019 term, the students had completed Level I fieldwork in traditional and role-emerging settings including simulated training with SPs. The quantitative data was collected at the beginning of the Spring 2020 term. The second phase of the study comprised of six semi-structured interviews (n = 6) with faculty, fieldwork educators, and potential employers affiliated with AdventHealth University and Daytona State College. The total number of participants (N) recruited for both the qualitative and quantitative strands of the study was 33. The data gathered from both phases addressed the following research questions:

Process Evaluation Research Questions:

RQ1. To what extent were each of the fieldwork program elements implemented as planned in traditional, role-emerging, and simulated settings?

RQ2. What are the students' perceptions of design elements of fieldwork experiences in traditional, role-emerging, and simulated settings?

RQ3. What are the students' perceptions of educational practices during fieldwork in traditional, role-emerging, and simulated settings?

RQ4. How do stakeholders such as faculty, fieldwork educators, and potential employers perceive student fieldwork experiences in traditional, role-emerging, and simulated settings?

Outcome Evaluation Research Questions:

RQ5. How do students perceive their satisfaction with learning during fieldwork experiences in traditional, role-emerging, and simulated settings?

RQ6. How do students perceive their self-confidence with learning during fieldwork experiences in traditional, role-emerging, and simulated settings?

Process Evaluation

Design and Implementation of the Study (RQ1)

To answer RQ1 (To what extent were each of the fieldwork program elements implemented as planned in traditional, role-emerging, and simulated settings?), the researcher analyzed Level I fieldwork schedules in the different contexts during the Fall 2019 term (see Table 4.2). The researcher interviewed faculty members to determine adherence, or consistency of the Level I fieldwork activities, including the orientation provided at training sites and duration or dosage of the experiences. Any barriers encountered during the different trainings (Dusenbury et al., 2003; Saunders, Evans, & Joshi, 2005) were also discussed with two AHU faculty members—Ms. Vicki Case and Ms. Angela Sampson. Ms. Case and Ms. Sampson serve

as the Program Director and Academic Fieldwork Coordinator, respectively, for the AHU OT assistant program.

During the Fall trimester, Level I fieldwork training was offered between September 9 and December 6, 2019. The student participants completed 44 hours of training in traditional settings as a component of the OCTH 214: Physical Dysfunction Occupational Therapy Practicum. This training was offered in contemporary settings such as hospitals, skilled nursing facilities, outpatient clinics, and inpatient rehabilitation units under the direct supervision of a licensed OT practitioner. The student participants also completed a total of 36 hours of fieldwork in nontraditional sites for their OCTH 215: Occupational Performance Practicum course. The OT assistant program faculty designed and led active learning experiences in diverse contexts including homeless shelters, adult day care centers, foster homes, and a university-funded community clinic for nontraditional fieldwork training. The faculty accompanied the students at these nontraditional sites to develop faculty-led, role-emerging practice experiences. Each faculty member was assigned to a group of four or five students during the faculty-led experiences. A hospital-based ambulation program was also incorporated as a nontraditional experience in the OCTH 215 practicum. The students assisted patients ambulate in hallways while interacting with the nursing staff at AdventHealth Hospital. This hospital is located near the main AHU campus. The hospital is a 2,247-bed acute-care medical facility that serves the Greater Orlando and neighboring areas. Although there was no direct OT supervision provided for the hospital-based ambulation program, the students attended a virtual orientation and completed a skills check evaluation prior to reporting to the hospital.

Apart from these experiences, the students participated in a total of 11 simulated scenarios with SPs for a total of 5 hours. The simulated training included three cases for the OCTH 211: Occupational Therapy in Geriatrics and eight scenarios for the OCTH 215:

Occupational Performance Practicum courses. According to Parker et al. (2015), every hour of training in a simulated setting is equivalent to two hours of clerkship in a traditional medical facility. Given this ratio of 1:2 between the duration of simulated learning and traditional clinical experience, the time spent in simulation was adjusted to 10 hours. The adjusted time included the pre-simulation orientation, scenario implementation, and pre- and post-simulation debriefing. All simulated scenarios during Fall 2019 included the use of SPs. Given the application-based nature of OT fieldwork, SP interaction was deemed appropriate as it can feel more realistic and natural as compared training with mannequins (Giesbrecht et al., 2014). The SPs also provided feedback to the students during post-debrief sessions (May, 2006). The simulated trainings were recorded, and the student participants had the choice to review their performance with faculty and reflect on their skill levels.

There were weather-related school closures during the first week of the Fall 2019 trimester. Due to the impact from Hurricane Dorian (National Hurricane Center, 2020), the program faculty provided a virtual orientation to all student participants via an online, synchronous session on Zoom. During the orientation, the faculty reviewed the syllabi from the practicum-based courses and provided instructions about the different rotations. There was tremendous diversity in the available Level I fieldwork sites during Fall 2019 (see Table 4.2). The wide-ranging training experiences in heterogenous settings were likely developed over time as a consequence of the dearth in the availability of contemporary field placements (Evenson et al., 2015). Given the differences in staffing, educator preparedness, available physical space, and resource allocation at individual training sites, the researcher acknowledged that there could be significant variation in student perspectives regarding the breadth of practical training offered. To gain a deeper understanding about the problem of practice and potential solution, the researcher designed a qualitative phase of the study involving semi-structured interviews with

faculty, fieldwork educators and potential employers. Most of the interviews were conducted during March 2020 around the time when the COVID-19 pandemic hit the United States (Redden, 2020; Tannenbaum, Traylor, Thomas, & Salas, 2020). Additional time and flexibility were provided to the non-student participants for scheduling interviews.

Design Elements of Fieldwork (RQ2)

For RQ2 (What are the students' perceptions of design elements of fieldwork experiences in traditional, role-emerging, and simulated settings?), the researcher collected quantitative data from students using the modified Simulation Design Scale (NLN, 2005). The adapted instrument yielded a Cronbach alpha coefficient of .95. A non-parametric, Friedman test was conducted using SPSS to compare the trainings in the three different formats. The test found no statistically significant differences on most items on the modified Simulation Design Scale. A significance of $p < .05$ was used for all statistical analyses. For instance, for item 1 on the Simulation Design Scale ("There was enough information provided at the beginning of the training to provide direction and encouragement"), the differences in median values—simulation (median = 5.00), in traditional fieldwork (median = 5.00), and nontraditional training (median = 5.00) revealed a $\chi 2$ (2, n = 27) = 0.23, p = .88—which were not significant. Similarly, for item 2 on the scale ("I clearly understood the purpose and objectives of the training"), the differences in the medians—between simulation (median = 5.00), traditional fieldwork (median = 5.00), and nontraditional training (median = 5.00)—resulted in values of $\chi 2$ (2, n = 27) = 0.23, p = .07, which were not statistically significant.

However, one item of the scale—Item Number 10 ("Independent problem-solving was facilitated")—demonstrated statistically significant differences on the Friedman test. The differences between the training in simulation (median = 5.00), traditional (median = 5.00), and nontraditional fieldwork (median = 5.00) resulted in $\chi 2$ (2, n = 27) = 10.75, p = .00. The

Kendall's coefficient of concordance (*W*) was .19, indicating a small effect size of differences between the trainings. A post hoc Wilcoxon signed rank test found significant differences between simulation and traditional fieldwork ($z = -2.65$, $p = .00$) on Item Number 10. The Table 5.1 illustrates detailed analyses for all items on the modified Simulation Design Scale.

Two items on the modified Simulation Design Scale were dedicated to simulation only. The items—Number 19 (The scenarios resembled a real-life situation) and Number 20 (Real-life actors, situations, and variables were built into the simulation scenarios)—were examined using descriptive statistics. The student sample, as a whole, concurred that the scenarios in simulation training resembled real-life situations ($M = 4.59$, $SD = 0.57$). The student participants were also in agreement that the actors, situations, and variables used in the simulation represented high-fidelity ($M = 4.81$, $SD = .39$). In addition, the participants rated each item on the modified Simulation Design Scale for its significance. A Likert scale from 1 (not important) to 5 (very important) was used for this rating. Descriptive statistics were used to analyze the scores for the purpose of internal validity. On average, all participants rated the items on the modified scale with a score of 4 (important) or more given their relevance to Level I OT fieldwork.

Table 5.1

Results of the Friedman test examining the items of the Simulation Design Scale

Item	Simulation Median	Traditional Median	Nontraditional Median	Chi-Square χ^2	*p* value	Kendall's *W*
1. There was enough information provided at the beginning of the training to provide direction and encouragement.	5.00	5.00	5.00	0.23	.88	.00
2. I clearly understood the purpose and objectives of the training.	5.00	5.00	5.00	0.00	.00	.00
3. The training provided enough information in a clear manner for me to problem-solve the situation(s).	4.50	5.00	5.00	5.09	.07	.09
4. There was enough information provided to me during the training.	4.00	4.50	4.50	0.57	.75	.01
5. The cues were appropriate and geared to promote my understanding.	5.00	5.00	5.00	3.92	.14	.07
6. Support was offered in a timely manner.	5.00	5.00	5.00	1.55	.46	.03
7. My need for help was recognized.	5.00	5.00	5.00	2.52	.28	.04
8. I felt supported by the instructor's assistance during the training.	5.00	5.00	5.00	4.29	.11	.08
9. I was supported in the learning process.	5.00	5.00	5.00	3.16	.20	.05
10. Independent problem-solving was facilitated.	5.00	5.00	5.00	10.75	.00*	.19
11. I was encouraged to explore all possibilities of the training.	5.00	5.00	5.00	0.86	.64	.01
12. The training was designed for my specific level of knowledge and skills.	5.00	4.00	5.00	3.81	.14	.07
13. The training allowed me the opportunity to prioritize occupational therapy assessments and care.	5.00	5.00	5.00	1.22	.54	.02
14. The training provided me an opportunity to goal set for my patient (or client).	5.00	4.50	5.00	4.80	.09	.09
15. Feedback provided was constructive.	5.00	5.00	5.00	1.26	.53	.02
16. Feedback was provided in a timely manner.	5.00	4.00	5.00	5.11	.07	.09
17. The training allowed me to analyze my own behavior and actions.	5.00	5.00	5.00	0.15	.92	.00
18. There was an opportunity after the training to obtain guidance/feedback from the instructor in order to build knowledge to another level.	5.00	5.00	5.00	1.50	.47	.02
19. The scenarios resembled a real-life situation(s).	Item analyzed separately as it pertains to simulation only					
20. Real-life actors, situations, and variables were built into the simulation scenario(s).	Item analyzed separately as it pertains to simulation only					

*$p < .05$

Educational Practices (RQ3)

For RQ3 (What are the students' perceptions of educational practices during fieldwork in traditional, role-emerging, and simulated settings?), the researcher used the modified Educational Practices Questionnaire (NLN, 2005) to collect quantitative data from student participants about each training format. The adapted Educational Practices Questionnaire instrument yielded a Cronbach alpha coefficient of .95. The Friedman test was conducted to compare the educational practices reported by students in the three different trainings. The test revealed statistical significance on four items on the modified Educational Practices Questionnaire. The Table 5.2 outlines detailed statistical analyses on all items of the modified Educational Practices Questionnaire.

Item Number 9 on the questionnaire (the instructor was able to respond to the individual needs of the learners during the training) yielded statistical significance between the trainings in simulation (median = 4.00), traditional (median = 4.00), and nontraditional fieldwork (median = 5.00). The resulting values of $\chi 2$ (2, n = 27) = 9.75, p = .00, and the Kendall's coefficient of concordance (W) of .19 indicated a small effect size of differences between trainings. A post hoc Wilcoxon signed rank test indicated significant differences between simulation and nontraditional fieldwork (z = -2.31, p = .01). The Dunn-Bonferroni post hoc correction ($p < .01$) was applied to the results obtained on the Wilcoxon signed rank test.

Table 5.2

Results of the Friedman test examining the items of the Educational Practices Questionnaire

Item	Simulation Median	Traditional Median	Nontraditional Median	Chi-Square $\chi 2$	*p* value	Kendall's *W*
1. I had the opportunity during the training to discuss the ideas and concepts taught in the course with the instructor(s) and other students.	5.00	5.00	5.00	0.84	.65	.01
2. I actively participated in the debriefing session(s) and/or structured meeting(s) after the training.	4.00	4.00	4.00	0.80	.67	.01
3. I had the opportunity to put more thought into my comments during the debriefing session(s) and/or structured meeting(s).	4.00	4.50	4.00	3.08	.21	.07
4. There were enough opportunities in the training to find out if I clearly understand the material.	4.00	4.00	4.00	2.59	.27	.05
5. I learned from the comments made by the instructor(s) before, during, or after the training.	5.00	5.00	5.00	3.44	.17	.06
6. I received cues during the training in a timely manner.	4.00	5.00	4.00	1.69	.42	.03
7. I had the chance to discuss the training objectives with my instructor(s).	5.00	5.00	5.00	.18	.91	.00
8. I had the opportunity to discuss ideas and concepts taught in the during with my instructor(s).	5.00	5.00	5.00	.94	.62	.01
9. The instructor(s) was(were) able to respond to the individual needs of the learners during the training.	4.00	5.00	5.00	9.75	.00*	.19
10. Using the training activities made my learning time more productive.	5.00	5.00	5.00	3.89	.14	.07
11. I had the chance to work with my peers during the training.	5.00	4.00	5.00	18.10	.00*	.36
12. During the training, my peers and I had to work on the clinical situation(s) together.	4.00	4.00	5.00	19.44	.00*	.42
13. The training offered a variety of ways in which to learn the material.	5.00	5.00	5.00	8.38	.01*	.16
14. The training offered a variety of ways of assessing my learning.	5.00	5.00	5.00	3.35	.18	.06
15. The objectives for the training were clear and easy to understand.	5.00	5.00	5.00	0.56	.75	.01
16. My instructor(s) communicated the goals and expectations to accomplish during the training.	5.00	5.00	5.00	2.66	.26	.04

*$p < .05$

Item Number 11 on the questionnaire (I had the chance to work with my peers during the training) revealed statistically significant differences in the medians between training in simulation (median = 5.00), traditional (median = 4.00), and nontraditional (median = 5.00) contexts. The Friedman test was significant $\chi 2$ (2, n = 27) = 18.10, p = .00, and the Kendall's

coefficient of concordance (*W*) of .36 indicated moderately strong differences among the three concerns. Follow-up pairwise comparisons were performed using the Wilcoxon signed-rank test. The Dunn-Bonferroni post hoc correction ($p < .01$) was applied and statistically significant differences were found between simulation and traditional fieldwork ($z = -2.58$, $p = .01$), traditional and nontraditional fieldwork ($z = -3.32$, $p = .00$), and nontraditional fieldwork and simulation ($z = -2.65$, $p = .00$).

Statistically significant differences between the trainings were also found on Item Number 12 of the modified Educational Practices Questionnaire ("During the training, my peers and I had to work on the clinical situations together"). On the Friedman test, the differences in the medians among simulation (median = 4.00), traditional (median = 4.00), and nontraditional fieldwork (median = 5.00) yielded significant values $\chi 2$ (2, $n = 27$) = 19.44, $p = .00$. The Kendall's coefficient of concordance (*W*) of .42 indicated moderately strong differences among the three training formats. The post hoc Wilcoxon signed rank test revealed significant differences between simulation and traditional fieldwork ($z = -2.38$, $p = .01$), traditional and nontraditional fieldwork ($z = -3.21$, $p = .00$), and simulation and nontraditional fieldwork ($z = -3.21$, $p = .00$), after applying the Dunn-Bonferonni's adjustment ($p < .01$). Item Number 13 on the Educational Practices Questionnaire ("The training offered a variety of ways in which to learn the material") also revealed significant differences between the training formats. The differences in the medians for simulation (median = 5.00), traditional (5.00), and nontraditional fieldwork (5.00) on the Friedman were further analyzed within SPSS. With significant values $\chi 2$ (2, $n = 27$) = 8.38, $p = .01$, the Kendall's coefficient of concordance (*W*) of .16 revealed a small effect of differences among the training formats. The post hoc Wilcoxon signed rank test revealed significant differences between traditional and nontraditional ($z = 0.01$, $p = .00$) fieldwork after applying the Dunn-Bonferonni's adjustment ($p < .01$).

Student participants rated each of the 16 items on the questionnaire for their significance. A Likert scale was used on the survey with scores from 1 (not important) to 5 (very important). Descriptive statistics were used to analyze these ratings for the purpose of internal validity. On average, all participants rated all items on the questionnaire with a score of 4 (important) or more for their salience to Level I fieldwork.

Non-Student Stakeholder Perceptions of the Trainings (RQ4)

Upon analyzing the open-ended responses at the semantic level (Braun & Clarke, 2006), the researcher identified codes from the interview transcripts based on the matrix of saliency (Buetow, 2010). From the qualitative data, nine major themes emerged. The researcher noted whether the themes appeared as highly important (HI), highly recurrent (HR), less important (LI), or less recurrent (LR) within the interview transcripts. The researcher generated subthemes, as applicable, and used different abbreviations to capture the type of stakeholder who conveyed a particular theme or subtheme during the interview. Every stakeholder was categorized by his or her professional designation to generate an acronym. For example, academic faculty were denoted with the acronym (A), fieldwork educator with (F), and potential employer with (E). Numeric values—placed as subscripts under the acronyms—indicated the number of stakeholders who expressed the theme. For instance, the abbreviation (A_2) meant that the theme or code was explicitly communicated by two academic or faculty participants. Similarly, the abbreviation (F_1) was ascribed if only one fieldwork educator conveyed a theme during the interview. In case none of the employers mentioned or referenced a theme or code, the acronym (E_0) was used. The generated themes with illustrative quotes from the interview transcripts are summarized below:

Theme 1. Fieldwork helps transfer knowledge from theory to practice (HI; HR [A_2; F_2; E_2]). The participants made frequent reference to the benefit of simulation in aiding the process of knowledge transformation. Simulation was found valuable in providing students with opportunities for hands-on practice. A potential employer, Participant Z, discussed the salience of simulation by stating:

> I think it is a good opportunity to do some hands-on things that you may not be able to do in a traditional setting because you have the actors that are prepared to have increased [student] participation …. I think [that] initially there will be the implication that [simulation] is contrived, but once [the students] get in and do the hands-on, I think some of that [problem] will dissipate. (Participant Z)

On the other hand, nontraditional fieldwork was reported to help students become more autonomous, and self-directed, which allowed them to gain essential skills in program development. During the interview, one faculty member, Participant V, stated:

> Our students are probably inundated [with nontraditional learning experiences]. I haven't compared [this with] other schools, but just what I know generally [is that] we inundate them in these community-based, nontraditional settings …. In fact, they tend to have better interpersonal skills, and [are] better team players, [with] better empathy, [and have] better rapport with the patients [at nontraditional field sites]. (Participant V)

Theme 2. Faculty learn from the process of assigning students in various learning environments (HI; HR [A_2; F_1; E_1]). The participants referred to this theme based on the standardized performance required of the SPs during experiential learning. The acting skills of the SPs, including props and moulage, can increase the realism of the experience (Ulrich & Mancini, 2014). However, not all experiences in simulated training may feel authentic. During the interviews, a fieldwork educator, Participant W, responded to a question about educational practices during fieldwork by stating:

> I think one of the best things [about training with real patients in actual clinics] is that [the students] are able to use their clinical skills … their observation skills a lot more [in a traditional setting] …. I think some things are just very difficult [to simulate]. I don't care how much of an actor you are. You know to really portray a spinal cord injury client is hard …. If [the patients] are having a spasm, it is kind of hard to really simulate clonus [involuntary limb movements associated with spasticity]. (Participant W)

Although the faculty work diligently to secure adequate numbers of placements in traditional settings, they may find themselves relegating to the complexities of the medical environment. Designing learning opportunities in traditional settings can be unpredictable (Hill et al., 2010). During the interview, a quote from Participant V particularly resonated with this issue in current practice:

> [The students] kind of get what [they] get. The certified fieldwork educators [in traditional sites] can be fabulous, or if it is a new site—you really don't know what you're sending the students in for! I [as the faculty member] might have done an initial site visit to have an idea that it's a nursing home or that it's an outpatient rehabilitation [clinic], but I really don't know what [the students] are going to exactly experience [on a daily basis]. (Participant V)

Given the existing shortages in placements and experienced fieldwork educators (Evenson et al., 2015), it may be a challenge for academic fieldwork coordinators to ensure that all students are exposed to clients with a common medical diagnosis (e.g., spinal cord injury, brain hemorrhage, or a stroke) and are able to develop similar skills such as palpating spasticity or clonus on the patients during Level I fieldwork.

Theme 3. Creating a safety net through simulated learning (HI; HR [A_2; F_2; E_2]). Ensuring safety of students and participating SPs during learning was a highly significant theme. During the interviews, the non-student stakeholders frequently alluded to safety of those involved as a priority. All participants discussed the significance of designing learning experiences that are not only safe but also emphasize optimal outcomes for the patients. One faculty participant, Participant U, explained this further:

> I think [simulation] is a safe place to mess up …. We need to simulate so that we can really have [the students] have that kind of kinesthetic learning—that you know, hands-on learning approach—where we can give them feedback right away. So, having them in a simulated experience—even if they mess up—is okay because [the faculty] are there to correct [the students]. (Participant U)

Subtheme 3a. Videotaping simulated scenarios help improve student performance (HI; LR [A_2; F_0; E_0]). All training sessions with SPs in simulation laboratories were recorded for future viewing. A faculty participant elaborated about the technology available and stated:

> So, everything is recorded. The students are able to watch [their performance] after the fact … which is eye-opening. When you're [in the midst of simulated training], it's different than watching it. And then, it also gives [the students] an opportunity, if they wanted, to challenge something in their grading. It gives them the opportunity to do that

and it also allows a second grader to look at it from their perspective as well. (Participant V)

Subtheme 3b. Anxiety evoked during simulation. (HI; HR [A_2; F_2; E_2]). Anxiety induced during fieldwork training was frequently discussed by the participants. Although simulation can be a likely source of the anxiety among students, training with SPs may help mitigate the performance issues resulting from emotional distress (Nielsen & Harder, 2014; Reteguiz, 2006). Simulating perturbing experiences in the laboratories can help students reflect on the experiences and develop strategies to respond effectively in case of unexpected emergencies and incidents at the workplace (Ulrich & Mancini, 2014). One of the faculty members described this further:

> There are four hospital units [in our simulation lab]. It looks just like … a subacute unit. They're set up like a standard patient room—so that's part of the technology. And then each of them [the rooms] also has multiple cameras that can be controlled, zoomed, moved by the person [who is] watching [on the computer screens] … You can see three different [camera views], and you can follow the student and the patient around the room. [The rooms] have voice and microphone [capabilities] and then [the sessions] are also recorded … [There are] multiple computer monitors to record and display [the video feed] in live time …. We have people grading in the moment while [the simulation training] is occurring …. [Sometimes] we have had to stop the student in simulation. We just go in [the room] and softly say [to the student] like—Let's just start you over and … you get a fresh start, which helps with [managing their anxiety levels]. (Participant V)

Subtheme 3c. Importance of support from peers and the value of feedback from SPs and faculty. (HI; LR [A_2; F_0; E_0]). Students have opportunities to work alongside their peers in simulated contexts. They receive valuable feedback from not only the faculty but also the SPs

and other fellow students. Timely feedback from various sources can help students reflect on their performance and address any performance-related issues (Boddicker et al., 2020). A faculty member elaborated about student satisfaction during simulated training by stating:

> I think satisfaction for the simulation [based learning] is really high. If you had asked me [this question] before I received feedback from the students, I would have said they're going to hate [simulation]. You know, I really thought the students are going to hate [simulation]. This is terrifying and we have so much simulation [based learning]. There was a year that we had so much simulation and I was saying it's too much, you know, and then the feedback from the students was—it was not enough. And I was shocked! [The students] even went to the Provost of the University to tell [the senior executive staff] how much they enjoyed having that much simulation [during their learning]. So that was a huge eye-opener for me. (Participant U)

Subtheme 3d. Reflective writing and documentation post simulation. (HI; HR [A_2, F_1; E_1]. Faculty often require students to document patient progress and reflect on their simulation-based experiences by writing reaction papers. The skill of medical charting with proper terminology is essential for students to monitor patient progress during therapy sessions. Medical documentation requires consistent practice to accurately depict the patients' improvement or lack of progress, in order to maintain compliance with guidelines set by health insurance providers (Sladyk & Ryan, 2015). A potential employer recommended that students should learn to document with SPs, who portray the role of complex patients, by stating:

> You [as the faculty] may be able to [simulate] a communication aspect or a [simulated] scenario of a difficult patient or a difficult family member …. You know, how are you [as the student] going to deal with someone … when blatantly the insurance is not there, and [the students] feel that [the insurance] should be [covering services]. And then [the

> students] can't treat [the patients] the way the family wants them treated, or there is no progress. You're not documenting progress for weeks and you have to sit there and tell someone's mother—Well, we're just not going to be able to [provide the patient with therapy] anymore. And so, maybe having students have those difficult conversations in the simulation lab … would prepare them. Or [they] would at least have an internal script that they could go off [from] when these scenarios come up. (Participant Z).

As the OT profession encounters growing threats of reduced insurance coverage and declining reimbursement (AOTA, 2018b), teaching students the value of medical documentation and proper service provision is critical for the survival of the profession. Simulated contexts and nontraditional fieldwork may provide students with opportunities to learn about medical documentation without the stress and productivity demands of training in traditional medical settings (Evenson et al., 2015; Slater, 2006). Repeated practice of charting in less demanding environments may help ease student transition to fast-paced clinical settings.

Theme 4. Designing problem-oriented, dynamic learning experiences (HI; HR [A_2; F_2; E_2]). Fieldwork educators and faculty often collaborate to develop problem-oriented experiences that maximize student engagement in field settings (Koski et al., 2013). As the process of securing clerkships becomes increasingly complex and uncertain (Hill et al., 2010), faculty are responsible for designing novel learning experiences in unique contexts that meet the desired curricular objectives. The opportune use of learning opportunities in simulated contexts can help infuse essential patient care skills that may otherwise be difficult to address in medically based settings.

Subtheme 4.a. Address problem behaviors and unexpected events during patient care. (HI; HR [A_2; F_2; E_1]). Novice practitioners and students often find it difficult to work with patients with cognitive impairment and behavioral issues (Costa, 2015). Therefore, a fieldwork

educator, Participant X, suggested that some simulated scenarios could be written to specifically target working with patients who have difficult behaviors and are noncompliant. During the interview, the fieldwork educator explained this further by stating:

> I guess the question would be with the patient actors … at times [can they enact] funny, off-the-wall [type] behaviors just to keep the student on their toes? Because in a lot of cases, I feel [patient] personalities tend to be a dynamic [concern]. I know for my student more recently … we talked about [that] all the time …. You know what you want to do as the therapist in charge, but sometimes you have to also look at the patient's personality and how you're handling [them]. So, if you had a patient actor … [that] maybe was cued [to] be overbearing, [or instructed to] try and not to [*sic*] listen to the therapist, you know. If that was part of the patient actor's role, you know—maybe not just being a [patient with a] stroke, or spinal cord [injury]—[instead enacting] somebody who has schizophrenia or something of that nature. If the [SP] actually had other personality quirks that can, kind of, make them difficult to work with, that would really be helpful in … one of those [simulated] settings. (Participant X)

Subtheme 4b. Incorporate critical thinking and problem-solving skills during training. (HI; HR [A_2; F_2; E_2]). The participants stressed the importance of honing the students' critical thinking skills during simulated training. A fieldwork educator emphasized:

> [The patients could] have weight-bearing precautions, you know, and how are [the students] going to dress this person [*sic*]? You know, how are you going to do one-handed shoe tying with the person [or] with an amputee …. So, there's a lot of different things … as far as activities of daily living go that I think you have to … really learn on the fly. Because it's so hard …. You talk about it in school, but you don't really see it …. How do you dress someone who has a cervical collar on? …. how do you dress someone

> with the Halo [spinal brace]? You know, so … as far as [learning and] completing all the activities of daily living with all the clients with the different comorbidities … I think … [will help students stay] ahead of the ballgame. Because I've learned so much more going through those things and most of it is trial and error [or] people teaching me … If I would have seen all these different things in a simulated setting, I think I would have been [a] little bit further along as far as my skill [set] goes. (Participant W)

Problem-solving skills may also be facilitated in nontraditional field environments with adequate support and resources from faculty members. A faculty member stated:

> And overall, the students said [that] they preferred the faculty-led [experiences] where they got the see [faculty members] treat patients [in nontraditional placements] and explain why we did what we did with the patients …. [The students] were able to come up with activities and they love that. You know, it was more hands-on than their traditional observations [during] Level I fieldwork, where they are just sitting in the corner. (Participant U)

Subtheme 4c. Well-trained SPs in simulated contexts enable students to temporarily suspend disbelief. (HI; HR [A_2; F_1; E_1]). Students may report difficulty with suspending reality while interacting with SPs (Ulrich & Mancini, 2014). A faculty member reported that since the SPs were well-trained, the majority of the students did not experience challenges with immersing themselves in the learning experience. The faculty member stated that the program has been able to hire SPs that have personally encountered medical conditions in the past, which further lent credibility to the perceived realism of the simulation. The faculty participant stated:

> I don't know if it's because we've just had really good actors, but …. I noticed [*sic*] when students are very cautious with [SPs], you know, like they truly feel that they could hurt or harm the [SPs] by touching them …. I feel that students, even though they know that

> they're actors, I've had students ask me "Did that … [SP] really have Parkinson's?" The actor does such a great job that [the students] are curious as to maybe the [SP] really did have this [condition]. I know for one of my simulation [cases], I was really lucky because I had a bilateral tennis elbow male [SP] who had a horrible injury … from being a printer [*sic*]. And I've never met a printer and so, that was my case study … And it turned out that the actor was a male who was a printer and had bilateral lateral epicondylitis … And so, in situations like that where I thought—Man, I could not have asked for a better scenario! (Participant U)

Theme 5. Productivity demands in traditional settings may impede student learning (HI; HR [A_2; F_2; E_2]). Most participants concurred that high productivity demands in certain traditional settings can lead to reduced student satisfaction during fieldwork. A fieldwork educator, Participant X, elaborated about the stressors and work demands in contemporary settings and stated:

> I think it depends on the actual field site. I think in the nursing homes, definitely. The nursing homes, I feel are a bit unrealistic. They want the therapist at a 100% productivity [level] which ethically is … let's be realistic … how is that possible? At the hospital setting where I have been able to work, I am grateful because our productivity [expectation] is 75%. So, I can take time with the student and I don't feel necessarily like that [productivity standard] is being held over my head [*sic*] as a therapist. Working at a teaching hospital, I feel like my supervisors understand and support the students being there …. I don't feel as though that the students understand the importance of productivity at the beginning of a rotation. They probably do towards the end because then we kind of ramp up … [the experience so the students take] autonomy … [and become] mindful that

> in time as they become a therapist, productivity is going to be an essential part of their daily routine. (Participant X)

Subtheme 5a. Reductionism in OT treatment approaches during traditional fieldwork (HI; HR [A_2; F_1; E_1]). The OT community has voiced several concerns surrounding the myopic focus on occupation-based interventions in practice settings (Gillen, 2014; Howard, 1991; Krishnagiri et al., 2017). A faculty member resonated this sentiment in the context of fieldwork education and stated:

> I think that, for the most part, there are a lot of students who are wanting that traditional fieldwork experience where they get to see as much as they can possibly see. And they want to understand it right away, you know? I think that's where the frustration also comes through. Because in class, we teach them about occupation and what they end up seeing in a lot of the [traditional] fieldwork settings is reductionistic treatment. And I think that frustrates [the students] and they question whether [the faculty] know what we're talking about! Because we're pushing function and occupation-based approaches … I think that stops [the students in their tracks] a little bit where they start to get frustrated. And they don't want to get all those [training] experiences in [traditional settings]. (Participant U)

Subtheme 5b. Challenges with reimbursement and student satisfaction with traditional fieldwork. (HI; HR [A_2; F_1; E_0]). Ongoing issues with OT reimbursement and related changes in patient volumes and practitioner schedules may produce several challenges for students during clerkships (Grenier, 2015; Slater, 2006). These changes are likely to impact student satisfaction with their learning experiences. One faculty participant mentioned:

> The caseload numbers vary in some of the settings …. [In some situations, a fieldwork educator] might not have a caseload. [The students] may have their times and hours that

> they [need to complete at the site], and they have to adjust [them]. [The faculty] don't have as much control [in such situations] … in a Level I [placement]. (Participant V)

Another faculty participant, Participant U, stated that:

> Most recently, I think with traditional learning where [students] are going out and doing [*sic*] a traditional setting for their Level I and II [fieldwork], I think that they're not as satisfied. And that's mostly because of the feedback that [the faculty] get [from the students] …. Sometimes their certified fieldwork educators or clinical instructors don't communicate with them. And so, we try to say—how can [the student] … get in and start a conversation with treatments so that [they are] not necessarily distracting, but that [they are] also complimenting [*sic*] the treatment? So, that's what our approach is. We're trying to get [the students] to learn how to communicate with their fieldwork educators, when the [educators are] busy and when they're trying to, you know, to stay on task. (Participant U)

Subtheme 5c. Student confidence in medical settings (HI; HR [A_2; F_1; E_2]). The participants noted that during most Level I fieldwork, students were expected to observe practitioners with patients. A faculty participant stated:

> Because of the parameters of most of the sites, Level I students are often considered hands-off and [are] not allowed to touch a patient. So, some sites will encourage the students to plan a treatment or plan an activity, [but] it doesn't mean that the student always gets to do [hands-on treatment]. (Participant V)

With fewer opportunities for hands-on practice in Level I traditional fieldwork, student confidence levels may be rather low during the initial stages of the training. An employer, Participant Z, reflected upon the prevalence of anxiety and self-doubt among students and new practitioners and stated:

> I think like anything your confidence builds with your experience. So, in the beginning, probably [the students] would report a low level [of confidence]. And then if everything is handled the correct way by the end [of Level II fieldwork], they should emerge with an entry-level of [*sic*] competence and confidence. (Participant Z)

Subtheme 5d. Self-care training is more realistic in the traditional medical model. (HI; LR [A_2; F_0; E_1]). Occupational therapy practitioners routinely teach self-care management, including skills for daily activities, to patients in authentic contexts. These skills often include training patients to be independent in dressing, hygiene, and bathing tasks. Addressing these activities may seem more appropriate in a medically based environment. During the interview, a potential employer stated that:

> Being OT, your [activities of daily living such as] … toileting [skills' training], that's something that is more beneficial in traditional [fieldwork] …. With students [in nontraditional sites], you are not going to get that true aspect [of teaching basic self care]—I am not sure how hands-on you're actually going to be in a homeless shelter, especially with toileting, [or assisting] someone to a bathroom—you know? There's [*sic*] limitations that you can do with that [at a nontraditional site]. (Participant Y)

Bathroom and hygiene activities may be difficult to simulate with SPs as well. Despite these limitations, training in simulated environments has several advantages. Participant X stated:

> I think the positive [aspect] with [simulated training] is [that] it gives [the student] a level of comfort. You still kind of feel like you're in that school setting, because maybe your [simulation training is] actually at your school …. It's a way to open the door [for the student] to [feel like]—Okay, I know this [simulation] isn't a real circumstance, but in my mind, I know that in my life, at one point, I'm going to be having a patient with these … conditions or limitations. What am I going to do to help [the patient]? (Participant X)

Theme 6. Students may be oblivious to the hidden benefits of nontraditional fieldwork (HI; HR [A_2; F_2; E_2]). Interprofessional education opportunities at nontraditional sites can be extremely rewarding (Tannenbaum et al., 2020). Students can participate in routine assessments and screenings, and develop new programs tailored to meet the unique needs of consumers. During the interview, Participant X, stated:

> I think the positive thing [about nontraditional fieldwork] is that [students are] going to learn how to advocate for [their] discipline. [The nontraditional site] may not have [several programs] already in place [for the students]. Maybe for certain individuals, [the nontraditional fieldwork] will teach them how to be innovative to create OT [opportunities] in areas [where] it's not traditionally assumed [*sic*]. (Participant X)

With the growth in the numbers of students and entry-level professionals, the job market for OT practitioners in the Orlando area is shrinking. A faculty member stated that:

> I truly believe that students are not excited about nontraditional [fieldwork]. I think that they don't understand [their role in role-emerging settings]. I think they're so stressed about needing to know—right now—how to graduate and treat patients in a traditional setting, that they don't understand the creativity that can come out of a nontraditional setting. [The students don't attend to] the fact that they can actually make a job [*sic*] for themselves in a nontraditional setting. And it might be a little bit more conducive for them outside of school—because the market is so flooded—than trying to really fight [with other graduates] for that traditional job. (Participant U)

Subtheme 6a. Structure of learning in role-emerging environments (HI; HR [A_2; F_2; E_1]). The participants acknowledged that the students may have different experiences in nontraditional settings, contingent upon the amount of learning structure, diversity of resources, and supports available (Costa, 2015). A fieldwork educator stated:

> I think that the structure depends on, maybe, where the student is placed. I guess it would depend on what they're trying … [to] achieve, you know. If [the experience] was something like [working with the] visually impaired [at a nontraditional site], of course, OT would be relevant in maybe those adaptive/modified type ways …. So, sometimes I think maybe OT isn't [offered typically] in that [particular] nontraditional setting but it doesn't mean [the students] wouldn't learn [during nontraditional fieldwork]. It would just be kind of a different way of learning. I learn every day from the patients that I serve which is funny, because I'm thinking—Oh, what am I going to teach [my patient] today? And then I walk away with something, I didn't know myself. (Participant X)

Subtheme 6b. Diverse learning opportunities in role-emerging fieldwork (HI; HR [A_2; F_2; E_2]). During the interviews, the faculty participants described field settings where they had successfully designed unconventional training opportunities for Level I fieldwork. Students participated in training experiences with young adults diagnosed with spinal cord injury and related disorders at a community-based fitness center. The students also had some opportunities to interact in a rock-steady boxing program specifically designed for individuals with Parkinson's disease. These programs were geared towards preventive health and wellness for sensitive population groups in the community. The faculty also created field experiences with senior adults at a local memory-care center. The students also visited a rehabilitation project that provides transitional living and supportive housing options to homeless individuals that are at high-risk for experiencing psychosocial issues such as substance abuse and trauma. These experiences help students understand the challenges surrounding individual access to public programs and examine how community partnerships can address the social determinants of health (Braveman & Gottlieb, 2014).

Theme 7. Lack of exposure to medical settings during Level I fieldwork (HI; HR [A_2; F_2; E_2]). Due to the existing shortages in field placements, the non-student participants were asked whether they were concerned about the potential lack of student exposure to the medical model during Level I fieldwork. Although there is an uptick in training options in nontraditional and simulated contexts, most participants felt that students would not need additional mentoring when they secure their first entry-level job in a contemporary setting. During the interview, an employer stated:

> I think [simulation] would provide what [the students] needed. And, I think in some cases [simulation] is going to provide more than what [the students] would have gotten [*sic*] before simulation was available. So, if anything, I think [the students] could come into it ahead of the game. (Participant Z)

Theme 8. Site-specific skills can be taught in simulated environments and community-based fieldwork (HI; HR [A_2; F_2; E_2]). The participants discussed the importance of teaching entry-level skills such as patient transfers, mobility, vital signs measurement, safety techniques, and emergency precautions in medically based contexts including simulation. Targeting entry-level skills that could be incorporated in simulation-based learning, a fieldwork educator stated:

> I think like all the basic common things … every body [*sic*] attachment that could be possible [should be included in simulation]. You know [like] a suprapubic [catheter], a Foley [catheter], a colostomy bag. [The students should] know what a [peripherally inserted central catheter] line is. Those basic things that people come out of surgery with …. Also vitals [*sic*], you know, make sure they understand the vital [signs] and what are the major things that you're looking for? Another thing [to include is] definitely range of

> motion, manual muscle testing … [and] understanding some of the major precautions. (Participant W)

A faculty participant noted that students often learn to communicate and interact with their clients professionally during nontraditional fieldwork. The students also learn to grade or adapt their treatment approaches contingent upon the clients' health literacy levels (Weekes & Phillips, 2015). The faculty member explained this further by sharing personal experiences in the field:

> I've become a better-rounded [*sic*] therapist because of [my experience in a] nontraditional setting. Because I was able to practice outside the box. I was able to step outside of my controlled little box and really be creative for the first time, outwardly. And I learned a lot about community … It was such a benefit! …. [When] I'm working with [patients'] hands [in a hand therapy clinic] … I understand how to treat their ... physical disabilities. But, then [the patients] would come up with a question about … figuring out how to file for [a] snack [program] … or get food assistance and different things [like] that. I would not have known [all that], if I had not had that [training experience in a] nontraditional setting. (Participant U)

Theme 9. Suggested frequency of Level I fieldwork training in different learning contexts (HI; HR [A_2; F_2; E_2]). During the interviews, the participants were asked to recommend the amount of time that the students should spend completing Level I fieldwork in the three training formats. All interviewees were in favor of offering some or all of the Level I fieldwork in simulation. A potential employer indicated that 100% of the Level I training should be held in laboratories with SPs. The participants suggested that the time spent training at traditional sites or nontraditional settings should not exceed 50% of the total duration of the Level I experience. Individual responses of the participants are tabulated in Table 5.3.

Table 5.3

Frequency of Level I fieldwork training recommended in the different contexts

Participant Type	% of training suggested in traditional settings	% of training suggested in nontraditional settings	% of training suggested in SP programs
Faculty U	33.3	33.3	33.3
Faculty V	-	50	50
Fieldwork Educator W	25	25	50
Fieldwork Educator X	40	20	40
Potential Employer Y	-	-	100
Potential Employer Z	25	15	60

Student Satisfaction (RQ5) and Self-Confidence with Learning (RQ6)

These research questions examined students' perceptions of satisfaction and self-confidence with learning using the adapted Student Satisfaction and Self-Confidence in Learning Scale (NLN, 2005). The scale yielded a Cronbach alpha coefficient of .94 and .87 for the student satisfaction and self-confidence sections respectively. A non-parametric, Friedman test was performed to determine whether the three training formats were equally preferred. The Friedman test revealed that there were no statistically significant differences between students' satisfaction with their learning experiences in the three distinct contexts. For instance, for Item Number 1 ("The teaching methods used in this simulation were helpful and effective") on the Student Satisfaction and Self-Confidence in Learning Scale, the differences in medians between the contexts were: simulation (median = 5.00), traditional (median = 5.00), and nontraditional fieldwork (median = 5.00). The resulting values of $\chi 2$ (2, n = 27) = 2.51, p = .28 were not statistically significant.

In addition, the differences in students' reported self-confidence with learning experiences were not found to be statistically significant. For example, on Item Number 6 ("I am

confident that I am mastering the content of the training activities that my instructors presented to me"), the differences in the medians—simulation (median = 4.00), traditional (median = 4.00), and nontraditional fieldwork (median = 4.00)—resulted in values of $\chi 2$ (2, n = 27) = 0.38, p = .82 that were not statistically significant. Detailed statistics of the items on the Student Satisfaction and Self- Confidence with Learning Scale are included in Table 5.4.

Table 5.4

Results of the Friedman test examining the Student Satisfaction and Self-Confidence Scale items

Item	Simulation Median	Traditional Median	Nontraditional Median	Chi-Square $\chi 2$	p value	Kendall's W
1. The teaching methods used in this training were helpful and effective.	5.00	5.00	5.00	2.51	.28	.04
2. The training provided me with a variety of learning materials and activities to promote my learning of the occupational therapy/occupational therapy assistant curriculum.	5.00	5.00	5.00	2.25	.32	.04
3. I enjoyed how my instructor(s) taught during this training.	5.00	5.00	5.00	2.52	.28	.04
4. The teaching materials used in this training were motivating and helped me to learn.	5.00	5.00	5.00	3.35	.18	.06
5. The way my instructor(s) taught during this training was suitable to the way I learn.	5.00	5.00	5.00	2.17	.33	.04
6. I am confident that I am mastering the content of the training activities that my instructor(s) presented to me.	4.00	4.00	4.00	.38	.82	.00
7. I am confident that the training covered critical content necessary for the mastery of the occupational therapy/occupational therapy assistant curriculum.	5.00	5.00	5.00	.72	.69	.01
8. I am confident that I am developing the skills and obtaining the required knowledge from this training to perform necessary tasks in a clinical setting.	5.00	5.00	5.00	2.00	.36	.03
9. My instructor(s) used helpful resources to teach during this training.	5.00	5.00	5.00	3.06	.21	.05
10. It is my responsibility as the student to learn what I need to know from the activities included in this training.	5.00	5.00	5.00	2.00	.36	.03
11. I know how to get help when I do not understand the concepts covered in this training.	5.00	5.00	5.00	.50	.77	.00
12. I know how to use the training activities to learn critical aspects of the occupational therapy skills.	5.00	5.00	5.00	2.00	.36	.03
13. During class time, it is the instructor's responsibility to tell me what I need to learn from the content included in the training activities.	5.00	5.00	5.00	.87	.64	.01

*p < .05

Discussion

Humans view the world through various vantage points which shape their perceptions and understanding of reality. Reality is created subjectively by a multitude of voices in various contexts, and therefore the meaning of events, experiences, and everyday phenomena can be contested (Rushford & Thomas, 2015). As described in Chapter 4, the investigation involved gathering perspectives from multiple OT stakeholders including students, faculty, fieldwork educators, and potential employers about training opportunities available in Level I fieldwork. Qualitative data from non-student stakeholders was merged with quantitative data obtained from students (see Appendix P). The rationale behind gathering this information from a group of stakeholders was to create a heteroglossic body of literature that integrates diverse perspectives of key players (see Figure 3.6). This investigation is relevant given the knowledge that there could be inherent power struggles between the stakeholders during the learning process (Heath & Heath, 2010). In the context of this study, heteroglossia refers to the construction of literature using multiple perspectives of potential change agents in the profession (Rushford & Thomas, 2015).

The study was a shared investigation between two schools (Calvert, 2016; Hill et al., 2010). Student and stakeholder perspectives regarding fieldwork in traditional, role-emerging, and simulated contexts moderated the strength of the effects between the independent variables (i.e., participation in the specific type of fieldwork) and dependent variables (i.e., perceptions of educational practices, design elements, and student reported satisfaction and self-confidence with the training). The researcher reported student perspectives about their experiences in the learning environments (i.e., traditional, role-emerging, and simulation) separately, but ultimately aligned them with the experiences or assumptions of the non-student stakeholders (i.e., faculty, fieldwork educators, and potential employers) in ways that are mutually supportive. The researcher also

created a polarity map (see Appendix Q) for the distinct learning contexts. Any disagreements or variance among the data were reported in the map to illuminate advantages, early warning signs and drawbacks within the different training contexts (see Appendix Q).

With immense commitment and dedication, the faculty at AdventHealth University aligned the learning objectives of fieldwork courses with the available training opportunities in different contexts. Using a systems approach (Senge, 1990), the faculty promoted coordination among the learning activities to design effective clerkships for students. The curricula of the fieldwork courses were coherent with the purpose of Level I fieldwork and were also consistent with the assessments utilized (Fink, 2013; Hooper, 2017). The university's commitment to innovation was clearly evident in the design of their fieldwork program. The faculty consistently communicated the expectations and objectives for Level I training to the fieldwork educators and students. The educators helped the learners understand the connection and sequence between "what is taught, how it is taught, and how it is [being] assessed" (Bransford et al., 2001, p. 151). Despite encountering scheduling issues secondary to inclement weather, the faculty were able to adjust instruction and offer orientation sessions virtually. The program was successful in absorbing the lost time due to five hurricane days and minimize a number of fieldwork-related disruptions.

The research revealed that SP programs are more likely to promote independent problem-solving abilities in students as compared to traditional fieldwork. Several authors have noted that practicing with an SP early on enhanced critical thinking skills among students (Bennett et al., 2017; Bethea et al., 2014; Botma, 2014; Guhde, 2010). This finding could be a result of the perceived benefits of early hands-on practice with SPs (Velde, Lane, & Clay, 2009). According to Giesbrecht et al. (2014), the perceived value of SP interaction may tend to diminish with increased exposure to actual patients in real-world settings. Of particular importance to this

research was a learning continuum suggested by Giesbrecht et al. (2014). This learning continuum (see Figure 5.1) is useful for understanding student preferences about clinical teaching and can inform stakeholders about choices in simulation-based education. Per this continuum, students are more comfortable in interacting with their peers, instructors, and SPs initially during simulated training. As their confidence levels improve, students prefer to work with SPs who have actually experienced the medical condition being portrayed. The students, thereafter, want to transition to working with real patients (Giesbrecht et al., 2014).

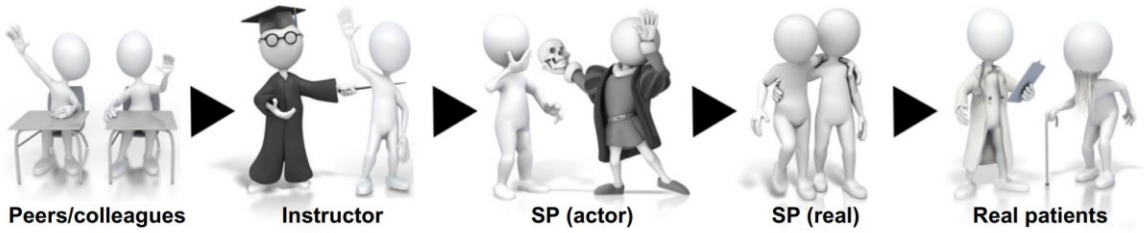

Figure 5.1. Learning continuum; preferred sequence for learning and practicing skills. From "A mixed methods study of student perceptions of using standardized patients for learning and evaluation" by E. Giesbrecht, P. Wener, G. Pereira, 2014, *Advances in Medical Education and Practice, 5,* pp. 241-255. Reprinted with permission.[2]

Contradicting prior research, the quantitative phase of this investigation failed to demonstrate student satisfaction and preference towards Level I fieldwork in traditional contexts (Heine & Bennett, 2003). This change was likely due to the extensive guidance and training provided by the OT assistant faculty throughout most of the learning in nontraditional and simulated contexts. AdventHealth University's faith-based mission—focused on promoting education and health care—as a part of the Seventh-day Adventist Church, could have also helped secure student commitment to serving clients in role-emerging environments. The AHU faculty transformed nontraditional fieldwork placements into faculty-led experiences which yielded better student responses in favor of educational practices in role-emerging environments.

[2] See Appendix R

The students reported that they often worked with their peers on clinical situations in community-based settings. Since students were assigned to nontraditional fieldwork in groups of four or five, the collaborative learning opportunities added depth to specific field experiences (Costa, 2015; Hengel & Romeo, 1995). The OT assistant faculty spent dedicated time in emerging practice settings and hence, were likely to collaborate with individual students to meet their learning needs. Students also reported that nontraditional fieldwork offered more diversity in training as compared to simulation. The collective heterogeneity of role-emerging practice areas (Costa, 2015) often provides varied learning opportunities to students. This finding could be consequence of the existing similarities between simulation training and traditional practice. Given the situated nature of learning (Lave & Wenger, 1991), simulation lab spaces are often constructed with the architecture of conventional medical settings in mind. The physical structure and design of the simulation laboratories at AHU was almost identical to the layout of a hospital room.

There were no measurable differences in student satisfaction and self-confidence levels across the different training sites. According to Parker et al. (2015), it is quite difficult to assess student's self-confidence during clerkships. During the interviews, faculty participants attributed the fail-safe features and opportunities for repeated practice in simulated environments as means for improving student satisfaction with learning. However, any improvement in their confidence levels may be temporary and may not necessarily influence students' behavior with real patients in workplace settings (Miller et al., 2012). It may also be difficult to predict or correlate student success on high-stakes licensing exams with the type of Level I fieldwork training completed (Khan-Farooqi, 2020). In the U.S., passing the standardized assessment administered by National Board for Certification in OT (NBCOT, 2021) is mandatory to earn credentials as an entry-level practitioner. Effective community and research partnerships can help students merge concepts

from both practice and theory (Baird et al., 2018) required for attaining professional competency and achieving success on standardized exams.

Since this dissertation was focused on apprenticeships, both the needs assessment (see Chapter 2) and the subsequent investigation were grounded in the sociocultural perspectives of learning (Gee, 2008). The researcher discovered that the concepts of educator agency and situated learning to "be analytically separate, but mutually constitutive, and in complex ways highly interdependent" (Eteläpelto, Vähäsantanen, Hökkä, & Paloniemi, 2013, p. 45). The OT profession continues to be challenged by declining reimbursement and shrinking revenue in several practice areas (Brown et al., 2015; Gillen, 2013; Howard, 1991; Lamb, 2016; Rubin 2020). Given the unpredictable nature of economic trends in the COVID-19 global pandemic (Anoruo & Kagan, 2020), student choice and satisfaction with fieldwork experiences may be increasingly tied to projected employment outlook, future growth, and earning potential in certain practice settings (Craik et al., 2001; Johanson, 2007; Rozier et al., 1992).

Over the past few decades, the OT community has been reeling from the strategic reductionism of its practice within the medical model (Gillen, 2014; Howard, 1991). The nature of the work in medical systems is stressful and can cause the workforce to feel weary and depleted (Ofri, 2019). The lack of essential resources combined with the onset of compassion fatigue among practitioners can create a cascade of events whose effects may be felt for decades (Cornish, 2020). The contextual challenges have created competing demands to improve the quality of patient care while operating businesses at lower costs. Stakeholders are often unaware of the latent benefits of training in nontraditional field sites. High-fidelity simulation can be effective in training practitioners on how to strike a balance between optimal quality of care and fluctuating patient volumes. With dedicated training and adequate resources, OT leaders may be

able to support capacity building among practitioners, thereby minimizing the risks associated with chronic stress and fatigue (Festinger, 1957; Klass, 2017; Ofri, 2019).

The Chronicle of Higher Education recently projected that academic institutions are likely to witness a drastic decline in student enrollment within the upcoming decade (Kelderman & Gardner, 2019). With the shrinking population of teenagers and young adults in some parts of the nation, future enrollment trends in schools are increasingly susceptible to demographic variability (Kelderman & Gardner, 2019). Occupational therapy is not immune to student enrollment and retention issues. The recent COVID-19 pandemic has impacted the work-life balance of numerous Americans (Tannenbaum et al., 2020). Frontline health workers including OT practitioners are at risk of getting deathly sick or furloughed (Anoruo & Kagan, 2020). With lower patient volumes across the sector, there is an uptick in the concerns surrounding unemployment or underemployment in health care (Rubin, 2020). The pandemic-induced stressors (Cornish, 2020) combined with rising costs of education and stagnating wages (Brown et al., 2015) could lead to a dramatic downturn in the profession's once-robust student numbers.

The COVID-19 pandemic has caused massive delays in student graduation and fieldwork completion across the nation (AAMC, 2020). Some practice settings such as rehabilitation hospitals, nursing homes, and assisted living facilities have stopped accepting fieldwork students due to concerns surrounding disease transmission (Redden, 2020). With ongoing issues surrounding the scarce availability of personal protective equipment and essential fieldwork resources (Cornish, 2020), the pandemic may cause longer periods of schooling and greater uncertainties for the college-going population. In these turbulent times, simulation-based learning and nontraditional fieldwork may allow students to demonstrate entry-level competence while adhering to recommended timelines for degree completion.

Implications for Practice

The overall purpose of fieldwork education is for learners to develop skills and competencies that allow them to successfully transition into entry-level practice (Costa, 2015). The findings of the investigation validate the use of creative learning opportunities in role-emerging settings and SP programs during Level I fieldwork. There are still many unanswered questions about the role of motivation, intelligence, personality, and divergent thinking on student fieldwork choices. A student's home, school, and work environment may influence their preference and openness toward creative learning (Plucker, 2017). The availability of positive mentors, social supports, and appropriate resources at training sites can greatly impact student learning. Since creativity involves a dynamic interplay between "the aptitude, process, and environment" (Plucker, 2017, p. 228), academic leaders must be mindful of various factors that may impede divergent thinking in students. Factors such as time constraints, high work volume, frequent evaluation, and overbearing organizational politics may deter innovative approaches in experiential education (Evans & Porche, 2005; Plucker, 2017; Taylor, 2014).

Although medical facilities provide several training opportunities in the real world, students are expected to engage in skills that involve massed practice (Brown, Roediger, & McDaniel, 2014). Depending on the nature of medical complexities and comorbidities in patients, students may have to attend to orthopedic, neurological, and vascular precautions, at the same time. High-fidelity simulation allows educators to break down the content into smaller, manageable units, and scaffold learning in a coherent sequence (Smith & Lammers, 2014). For instance, students can demonstrate mastery of orthopedic-related safety precautions and those related to cerebral hemorrhages during distinct simulated trainings before merging them together for a patient with blunt force head trauma. These strategies related to spacing and interleaving of

the content combined with active learning and reflective praxis solidify metacognitive abilities in students (Roediger & Pyc, 2012).

Nontraditional fieldwork can provide valuable opportunities for increased collaboration among practitioners across various disciplines (Costa, 2015). Training in role-emerging sites can foster transdisciplinary approaches by increasing communication between professionals from diverse backgrounds, including cognitive science, psychology, and education. Shared frameworks and theoretical models can reinforce knowledge creation by developing a common platform for promoting partnerships and research exchange (Katzir & Paré-Blagoev, 2006). A polarity map (see Appendix Q) illustrates certain significant advantages and pitfalls of fieldwork in traditional sites, role-emerging settings, and simulated environments. Instead of holding polemic views and drawing comparisons between the training methods, schools must leverage the advantages of each training format to identify best practice in fieldwork education (Kise, 2014). Simulation programs should be viewed as a complement rather as a substitute to traditional clerkships (Parker et al., 2015). Identifying the optimal fit of clinical training for each student may require educators to adopt a beginner's mindset and make modifications to the fieldwork curriculum based on best practices (Mootee, 2011; Plattner, n.d.). Simulation prototypes can be used to design the objectives and customize the training contingent upon factors such as resource availability, contextual demands, instructional quality, patients' medical severity, and student mastery (Bryk, 2010; Merriam & Bierema, 2014).

The COVID-19 pandemic has exposed the fragility of the U.S. health systems (Anoruo & Kagan, 2020) and the lack of fault-tolerance models (Balfanz, 2019a) for training students. Innovative approaches in fieldwork will require educators to attend to implementation fidelity and program variation to facilitate creative ways that maximize "human, financial and curricular resources" (Hamilton & Mackinnon, 2013, p. 6). Focusing on early warning signs and action

steps can aid stakeholders in gathering information and balancing multiple stakeholder perspectives (see Appendix Q). Future research activities must target the overall rigor of Level I field experiences and student achievement in individual settings and examine their coherence with student performance during Level II fieldwork. Efforts must be made to investigate unconventional training methods in special practice areas such as pediatrics. Recruiting SPs for training in pediatrics may be difficult, but hybrid options using advanced simulators in lieu of child actors may be available. Continuous improvement of training resources with special emphasis on human capital can prevent unintended consequences and enable the OT community to build consensus regarding the quality of entry-level fieldwork in the profession.

Limitations

This study had several limitations. The study compared one control group (i.e., traditional fieldwork) with two experimental conditions (i.e., role-emerging fieldwork and SP program). The researcher was aware of the threats to internal validity from maturation, attrition, and history effects, and those to construct validity from mono-method bias, reactivity to the experimental situation, novel and disruption effects. Random scheduling of experimental conditions with the control group could have likely reduced the threat of cyclical maturation within the sample. Due to the limited number of field opportunities in traditional and role-emerging settings, a randomized trial could not be designed. The overlap in the treatment conditions between the control and experimental groups could have possibly affected the rigor of the investigation.

An interrupted time series design was originally selected to make repeated observations in the same group, but the within-participants design feature is considered weak for causal inferences. Alternative designs such as an observational, cross-sectional study, randomized crossover design, switching replications methods, and phenomenological approach were not considered secondary to logistical constraints and concurrent student placements across field

settings. Owing to the design limitations and issues with the causality assessment, the researcher did not expect error-free responses to the research questions. Since clinical experiences occurred in natural environments, there was risk for contamination from confounding variables.

In addition, stakeholder perspectives are subject to change from one semester to the next contingent upon multitude of factors such as staffing, educator preparedness, and the quality of the training. To avoid recency bias, the researcher had originally proposed to collect data from the participants in a progressive, sequential manner throughout the Fall 2019 term. Due to time constraints and curricular demands, all quantitative data was collected in one shot. This impacted the researcher's ability to adhere to the original exclusion criteria as proposed prior to the data collection phase. The resulting sampling bias threatened both the validity and reliability of the investigation.

Most of the interviews were conducted right around the time when the COVID-19 pandemic started in the United States. As a result of the strict social distancing guidelines within medical settings, the researcher had to collect the qualitative data virtually. Face-to-face interviews may sometimes reveal more than intended information and provide a different dimension to the discussion. The study was not free from procedural bias as the original proposal was amended prior to the data collection.

The sample size in the investigation was too small to generalize the results of the study. A larger sample could have improved the power for the extraction of statistical effect size values. By recruiting additional participants from incoming student cohorts, the researcher could have enhanced the power by increasing the variability of treatment. Given the risk of attrition and sampling error, the researcher considered recruiting additional student participants enrolled in the master's level OT program at AHU. But adding participants from different cohorts at different educational levels would have led to nonequivalent comparison groups. The small sample may

have caused the low- to mid-size effect of the quantitative findings. A large statistical effect, however, could be of little practical significance.

Conclusion

This investigation supports using SP programs and role-emerging placements for Level I OT fieldwork. Simulation-based education holds enormous promise to "break the rules about when, where, and how learning happens" (XQ: The Super School Project, n.d., p. 1). However, some stakeholders may perceive simulation as a type of disruptive innovation (Christensen, Horn, & Staker, 2013; Heath & Heath, 2010). Multiple iterations of simulation-based training in the presence of various stakeholder groups may be warranted for consensus building. Using appreciative inquiry (Cooperrider & Whitney, 2005) as a framework to compare the rigor of creative field placements with contemporary clerkships could be beneficial. Highlighting the bright spots and cloning small wins to the institution's advantage can help gain the trust of stakeholders (Balfanz, 2019a).

Future problems that arise as a consequence of innovation could be studied using systems thinking (Senge, 1990). These approaches will allow stakeholders to gain further insight on "what works" in lieu of traditional OT fieldwork. By prototyping, adapting, and refining clinical scenarios, props, and portrayals for process improvement, facilitators in SP programs can learn from simulation failures (Plattner, 2019). Similarly, outcomes data from existing nontraditional fieldwork programs that include student feedback should be closely monitored for variability. An in-depth assessment about the causes of variability in stakeholder viewpoints can fortify efforts for knowledge innovation and personalization in health education (Hamilton & Mackinnon, 2013).

The concept of relational transparency supports agency and leverages human capital for greater inspiration, emotional intelligence, and sensemaking (Hamilton & Mackinnon, 2013;

Harvard University Graduate School of Design, 2011; Labby, Lunenberg, & Slate, 2012). Relational transparency is defined as "being able to fully acknowledge one's own perspective, while exploring the perspectives of others with openness and honesty" (Sweetman, 2016, p. 3). In their book *Switch: How to Change Things When Change Is Hard*, Heath and Heath (2010) provide several recommendations for gaining the commitment of stakeholders about potential solutions to a problem. They use design thinking mindsets that help inform each group's point of view and beliefs across a commitment continuum (see Figure 3.7). By simplifying the problem and scripting critical moves, educators can alter stakeholders' attitudes towards accepting change (Heath & Heath, 2010). Building self-efficacy and modeling competence through clear and specific strategies will support the development of a growth mindset among students (Farrington, 2014). In addition, detailed assessment of a learner's mastery in a specific setting, including his or her ability to generalize learned skills across contexts, may benefit school leaders in future strategic planning (Schulte, Easton, & Parker, 2009).

Unfortunately, OT practitioners often experience cognitive dissonance in the face of professional issues such as productivity demands, degree inflation, feigned practice trends, and declining reimbursement in conventional settings (Brown et al., 2015; Festinger, 1957; Gillen, 2013; Howard, 1991; Lamb, 2016). Although practitioners are cognizant of the beliefs and values of the profession, external demands in public health have produced insurmountable challenges in doing justice to the call of duty. Rapid fluctuations in the economy, climate, and technology in the 21st century have resulted in a fierce competition for resources (Taylor, 2014), thereby creating a need to forecast future challenges and scarcities with greater accuracy. With changing consumer demands and ethos, inconsistencies are increasingly evident between the profession's holistic philosophy and reductionistic trends in OT practice. Despite disruptions in work-life balance caused by modern day stressors and technology overuse, OT practitioners

continue to serve their patients, even those in pursuit of negative occupations as witnessed in cases of workaholism, gaming addiction, and smartphone-related hand pain (Twinley, 2013).

Occupational therapy practitioners must give themselves time and space to cultivate increased empathy and emotional resilience for managing daily workplace stressors (Humphrey, 2013). The practitioners must adopt a more comprehensive understanding of the enormous complexities in current health care systems. There is evidence that positive emotions are directly linked with creative expression, enhanced productivity, and adaptive expertise (Bujacz et al., 2015). Conversely, engagement in creative activities may improve autonomy, self-expression, self-awareness, and increase positive emotions among students and practitioners (Hao et al., 2015).

The analogy of the rider and the elephant (Haidt, 2006) can be used to generate empathy about resource limitations in fieldwork education. The rider represents the cognitive aspects, such as problem-solving and judgment, whereas the elephant symbolizes the affective components, such as emotional intelligence and motivation, of the academic leadership. Appealing to the emotional side of the administrators may seem hard, as if one were trying to tame an elephant. However, imploring school authorities to be open and receptive to change is crucial for educational innovation. Accentuating positive emotions in schools helps foster the creative urge in academic leadership. High-performing institutions like Johns Hopkins University, Emory University's School of Public Health, and Yale School of Medicine have already adopted SP programs in their curricula. Tapping into the professional identity and pioneering spirit of the school leaders may be an effective strategy for securing their approval (Farrington, 2014). Although students may comply with disruptive innovation, they may not necessarily commit to learning in simulation-based environments and nontraditional settings. Students are end-users of educational innovation. Therefore, academic institutions must adopt

actionable steps to strategically secure emotional buy-in of students across learning contexts. These strategies include:

- Increase faculty awareness about the effects of adverse childhood experiences and poverty on cognitive and non-cognitive factors in education (Balfanz, 2019b).
- Encourage fieldwork educators to question their own inadvertent biases and use of empathy when dealing with work demands and student learning needs (Banks et al., 2001).
- Ask faculty to utilize "knowledge of their students' culture and ethnicity as a framework for inquiry" (Banks et al., 2001, p. 198).
- Build internal capacity by giving faculty adequate time to invest in understanding student needs (Balfanz, 2019b).
- Provide fieldwork educators with evidence-based resources and professional development opportunities (Jensen et al., 2016).
- Enhance social-emotional competence, resilience, self-regulation, metacognition, and self-directed learning among students (Farnham, Fernando, Perigo, Brossman, & Tough, 2015; Jensen, 2009).
- Educate students about proper emotional behaviors and social responses required for effective workplace learning (Jensen, 2009).
- Support peer mentoring programs for students from underprivileged backgrounds (Farrington, 2014).
- Promote non-competitive, personalized, competency-based approaches such as behavioral event interview to match students' learning needs with prospective internships (Hitt, 2015).

- Use different frames of reference and inclusive learning communities to refute negative stereotypes about students from impoverished neighborhoods (Farrington, 2014).
- Promote student agency by providing them with opportunities to learn the same curricular content in different contexts (Hardiman, 2012).
- Build a fault-tolerance model (Balfanz, 2019b) for effective workplace training and minimize risk of patient harm during hands-on clinical experiences.

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Appendix A
Johns Hopkins University
Homewood Institutional Review Board (HIRB)

Informed Consent

Title: Pedagogical content knowledge in traditional and nontraditional fieldwork educators in occupational therapy: A comparative study

Principal Investigator: Dr. Christine Eith, PhD Assistant Professor
Date: March 10, 2017

PURPOSE OF RESEARCH STUDY: The primary purpose of this research study is to compare perceived fieldwork competencies among traditional and nontraditional fieldwork educators in both existing (traditional) and emerging or nontraditional practice settings.

PROCEDURES:

A survey will be sent electronically to a large group of fieldwork coordinators, program directors, and faculty representing both occupational therapy and occupational therapy assistant programs.

Time required: Approximately 30 minutes to complete survey.

RISKS/DISCOMFORTS:
There are no anticipated risks to participants.

BENEFITS:
The study will potentially benefit academic programs in occupational therapy to recruit and educate fieldwork educators to support and increase fieldwork education opportunities in the profession.

Title: Pedagogical content knowledge in traditional and nontraditional fieldwork educators in occupational therapy: A comparative study
PI: Dr. Christine Eith
Date: March 10, 2017

Participants may potentially benefit from this study by having an increased understanding of how fieldwork educators can use instructional strategies to help students learn essential entry-level skills during occupational therapy fieldwork in both traditional settings and emerging areas of practice.

VOLUNTARY PARTICIPATION AND RIGHT TO WITHDRAW:

Participation in this study is totally voluntary. You choose whether to participate. If you choose not to participate, there are no penalties.

You can stop participation in the study at any time, without any penalty or loss of benefits. If you want to withdraw from the study, or to stop participating, please contact Shirish J. Lala via phone or email: (386) 216-0398, slala3@jhu.edu

CONFIDENTIALITY:

Any study records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Johns Hopkins University Homewood Institutional Review Board and officials from government agencies such as the Office for Human Research Protections. All of these people are required to keep your identity confidential. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

All measures will be examined by the Principal Investigator and research affiliates only (including those entities described above). No identifiable information will be included in any reports of the research published or provided to school administration, clinic or practice setting. A participant number will be assigned to all surveys that are recorded.

Surveys will be collected in electronic format. Survey data completed electronically will be collected via a password protected Qualtrics account that belongs to JHU School of Education. If the participant is unable to complete the surveys electronically, paper copies will be provided via mail. In both electronic and paper format, these data will not include identifiable information.

All research data will be kept in a locked office. Electronic data will be stored on the Primary investigator's computer, which is password protected. Any electronic files will be erased and paper documents shredded, ten years after collection.

Title: Pedagogical content knowledge in traditional and nontraditional fieldwork educators in occupational therapy: A comparative study
PI: Dr. Christine Eith
Date: March 10, 2017

COMPENSATION:
You will not receive any payment or other compensation for participating in this study.

IF YOU HAVE QUESTIONS OR CONCERNS:
You can ask questions about this research study at any time during the study by contacting Shirish J. Lala via phone or email: (386) 216-0398, slala3@jhu.edu

If you have questions about your rights as a research participant or feel that you have not been treated fairly, please call the Homewood Institutional Review Board at Johns Hopkins University at (410) 516-6580.

SIGNATURES

WHAT YOUR SIGNATURE MEANS:
Your signature below means that you understand the information in this consent form.
Your signature also means that you agree to participate in the study.
By signing this consent form, you have not waived any legal rights you would have as a participant in a research study.

Signature	**Date**
Name:	
Title:	
Comments:	

Shirish Lala	**4/11/17**
Name of Person Obtaining Consent (Investigator or HIRB-Approved Designee)	**Date**

Appendix B
The American Occupational Therapy Association Self-Assessment Tool for Fieldwork Educator Competency

Fieldwork education is a vital component in preparing students for entry-level occupational therapy practice. This voluntary self-assessment tool supports the development of skills necessary to be an effective fieldwork educator (FWE) whose role is to facilitate the progression from student to entry-level practitioner. This tool was designed to provide a structure for fieldwork educators to assess their own level of competence and to identify areas for further development and improvement of their skills. Competency as a fieldwork educator promotes the practitioner's pursuit of excellence in working with students and ensures the advancement of the profession.

PURPOSE

Both novice and experienced OTA and OT fieldwork educators can use this tool as a guide for self-reflection to target areas for professional growth. Proficiency as a fieldwork educator is an ongoing process of assessment, education, and practice. It is essential for fieldwork educators to continually work toward improving their proficiency in all competency areas as they supervise OTA/OT students. Use of this assessment tool is intended to be the foundation from which each fieldwork educator will create a professional growth plan with specific improvement strategies and measurable outcomes to advance development in this area of practice.

CONTENT

The self-assessment tool includes the following features:

1) Addresses fieldwork educator competencies in the areas of professional practice, education, supervision, evaluation, and administration.
2) Uses a numerical rating (Likert) scale from 1 (Low Proficiency) to 5 (High Proficiency) to aid in self-assessment.
3) Includes a "Comment Section" intended to be used by the fieldwork educator in identifying aspects of competency for self-improvement.
4) Results in a "Fieldwork Educator Professional Development Plan." Fieldwork educators can use the suggested format for recording a professional development plan of action. The suggested format or chart may be copied for additional space. Such a plan helps fieldwork educators meet the standards established for FWE s as stated in the Accreditation Council for Occupational Therapy Education (ACOTE) Standards and Interpretive Guidelines (2006).
5) Explains terminology, which is based on the Practice Framework 2nd Edition.

WHO SHOULD USE THE TOOL

This self-assessment tool is designed to be used by OTA and OT fieldwork educators at all levels of expertise in supervising students. While the tool is primarily oriented toward OTA/OT practitioners who directly supervise OTA and/or OT Level II fieldwork, it can easily be applied to Level I fieldwork and to non-OT supervisors.

DIRECTIONS

Fieldwork educators should determine the relevance of each competency to the role of the OTA/OT in their setting. Some competency statements may not be applicable in their setting and/or in their state (refer to the appropriate OTA/OT role delineation documents). In addition, the “Self-Assessment Tool for Fieldwork Educator Competency” is to be used for professional development only. It is not intended to be used as a performance appraisal. However, the fieldwork educator may certainly include goals articulated in the “Fieldwork Educator Professional Development Plan” in their annual professional goals.

Self-Assessment Tool:

Circle the number that correlates with your level of competence for each item. The “Comments” section can be used to highlight strengths, areas that need improvement, etc.

Development Plan:

It is helpful to prioritize the competency areas that need improvement and to select only a few areas that can realistically be accomplished. Write goals for each of the selected areas and identify strategies to meet the goals at the same time as establishing a deadline for meeting the goals. OT practitioners are adept in assessing, planning, and implementing practical and meaningful continuous quality improvement plans. It is this attribute, plus a desire to support the growth of future practitioners, that motivates OTAs and OTs to seek methods for gaining and maintaining their competence as fieldwork educators. We hope this tool is helpful in guiding fieldwork educators on a journey of self-appraisal and professional development. It meets the immediate need of defining basic competencies of fieldwork educators. It is in this spirit that the "Self-Assessment Tool" was drafted and offered as a means for better serving the needs of individuals and the future of occupational therapy.

Originally developed in 1997 by the COE Fieldwork Issues Committee.

Revised in 2009 by the Commission on Education:

René Padilla, PhD, OTR/L, FAOTA, *Chairperson*
Andrea Billics, PhD, OTR/L
Judith Blum, MS, OTR/L
Paula Bohr, PhD, OTR/L, FAOTA
Jennifer Coyne, COTA/L
Jyothi Gupta, PhD, OTR/L
Linda Musselman, PhD, OTR, FAOTA
Linda Orr, MPA, OTR/L

STAKEHOLDER PERSPECTIVES OF LEVEL I FIELDWORK

Abbey Sipp, OTS
Patricia Stutz-Tanenbaum, MS, OTR
Neil Harvison, PhD, OTR/L (AOTA Liaison)

(continued)

SELF-ASSESSMENT TOOL FOR FIELDWORK EDUCATOR COMPETENCY

A. PROFESSIONAL PRACTICE COMPETENCIES	KEY DEFINITION STATEMENT: *The fieldwork educator demonstrates competencies in professional knowledge, skills, and judgment in occupational therapy practice that supports the client's engagement in meaningful occupation*					
The fieldwork educator:	CIRCLE ONE Low Proficient				High Proficient	COMMENTS
1. Uses a systematic approach to evaluation and intervention that is science-driven and focused on clients' occupational performance needs.	1	2	3	4	5	
2. Skillfully collects and analyzes clients' occupational profile and performance in order to develop and implement OT services.	1	2	3	4	5	
3. Considers context, activity demands, and client factors when determining feasibility and appropriateness of interventions.	1	2	3	4	5	
4. Understands clients' concerns, occupational performance issues, and safety factors for participation in intervention.	1	2	3	4	5	
5. Articulates the rationale and theoretical model, frame of reference and/or therapeutic approach for OT services.	1	2	3	4	5	
6. Incorporates evidence based research into occupational therapy practice.	1	2	3	4	5	
7. Collaborates with the OT/OTA to provide evaluation, interpretation of data, intervention planning, intervention, discharge planning, and documentation.	1	2	3	4	5	
8. Collaborates with individuals, colleagues, family/support system, and other staff or professionals with respect, sensitivity, and professional judgment.	1	2	3	4	5	
9. Works to establish a collaborative relationship that values the client perspective including diversity, values, beliefs, health, and well-being as defined by the client.	1	2	3	4	5	
10. Addresses psychosocial factors across the OT practice setting as a reflection of a client-centered approach.	1	2	3	4	5	
11. Effectively manages and prioritizes client-centered services (e.g., intervention, documentation, team meetings, etc.) that support occupation-based outcomes.	1	2	3	4	5	
12. Incorporates legal, ethical, and professional issues that influence practice (e.g., reimbursement, confidentiality, role delineation, etc.	1	2	3	4	5	
13. Articulates and implements OTA/OT role delineations as relevant to the practice setting.	1	2	3	4	5	
14. Adheres to professional standards of practice and code of ethics as identified by AOTA and state regulatory boards.	1	2	3	4	5	
15. Assumes responsibility for and pursues professional development to expand knowledge and skills (e.g., understands own strengths and limitations, etc.).	1	2	3	4	5	
16. Is knowledgeable regarding entry-level practice skills for the OT and OTA .	1	2	3	4	5	

(continued)

B. EDUCATION COMPETENCIES	KEY DEFINITION STATEMENT: *The fieldwork educator facilitates the student's development of professional clinical reasoning and its application to entry-level practice. The fieldwork educator assumes responsibility for ensuring her or his own competence as a fieldwork educator.*					
The fieldwork educator:	CIRCLE ONE Low Proficient				High Proficient	COMMENTS
1. Provides ongoing assessment of a student's individual learning needs based on review of academic curriculum design, OTA and OT roles, prior experiences, and current performance level.	1	2	3	4	5	
2. Collaboratively develops student and fieldwork learning contracts to support occupation-based fieldwork experience (develop outcome-based measurable learning objectives).	1	2	3	4	5	
3. Sequences learning experiences to grade progression toward entry-level practice.	1	2	3	4	5	
4. Facilitates student-directed learning within the parameters of the fieldwork environment.	1	2	3	4	5	
5. Maximizes opportunities for learning by using planned and unplanned experiences within the fieldwork environment.	1	2	3	4	5	
6. Uses a variety of instructional strategies to facilitate the learning process (e.g., role modeling, co-intervention, videotaping, etc.).	1	2	3	4	5	
7. Adapts approach to work effectively with all students, including those who have physical and/or psychosocial impairment(s).	1	2	3	4	5	
8. Demonstrates sensitivity to student learning style to adapt teaching approach for diverse student populations.	1	2	3	4	5	
9. Guides student integration of therapeutic concepts and skills (e.g., facilitates discussions to elicit clinical/professional reasoning, convert practice situations into learning experiences, and/or to process personal feelings/values that interface with practice.	1	2	3	4	5	
10. Reflects upon educator role as complimentary to OT practitioner role.	1	2	3	4	5	
11. Self-identifies and implements a Fieldwork Educator Professional Development Plan. (See page 8 for suggested plan.)	1	2	3	4	5	
12. Identifies resources to promote student and fieldwork educator professional development (e.g., academic program, student and supervisor mentors, AOTA, Commission on Education, Education Special Interest Section, workshops, in-services, etc.).	1	2	3	4	5	
13. Provides reference materials to promote student and fieldwork educator professional development and use of EBP (e.g., publications, texts, videos, internet, etc.).	1	2	3	4	5	
14. Uses evidence-based research to guide student performance and learning for effective teaching strategies.	1	2	3	4	5	

(continued)

C. SUPERVISION COMPETENCIES	KEY DEFINITION STATEMENT: *The fieldwork educator facilitates student achievement of entry-level practice through a student-centered approach.*					
The fieldwork educator:	CIRCLE ONE Low Proficient				High Proficient	COMMENTS
1. Uses current supervision models and theories to facilitation student performance and professional behavior	1	2	3	4	5	
2. Presents clear expectations of performance throughout the fieldwork experience, appropriate to entry level OT practice (e.g., student OTA/OT role delineation, Level I/II fieldwork, practice environment, etc.).	1	2	3	4	5	
3. Anticipates and prepares student for challenging situations.	1	2	3	4	5	
4. Provides activities to challenge student's optimal performance.	1	2	3	4	5	
5. Provides the student with prompt, direct, specific, and constructive feedback throughout the fieldwork experience.	1	2	3	4	5	
6. Uses a progression of supervisory approaches throughout the student learning cycle (adapts the amount and type of supervision, changes approach to support student learning, challenges student at current level of performance) to facilitate student performance.	1	2	3	4	5	
7. Uses a variety of strategies to provide communication and feedback to promote student professional development (verbal, non-verbal, group, direct, indirect).	1	2	3	4	5	
8. Is aware of his or her own personal style of supervision and is able to adapt the approach in response to student performance.	1	2	3	4	5	
9. Initiates interaction to resolve conflict and to raise issues of concern.	1	2	3	4	5	
10. Elicits and responds to student's feedback and concerns.	1	2	3	4	5	
11. Collaborates with the student and academic fieldwork coordinator to identify and modify learning environments when student experiences difficulty.	1	2	3	4	5	
12. Models appropriate professional behaviors when interacting with students, clients, and peers.	1	2	3	4	5	
13. Consults with other FW educators and sites to develop creative learning experiences for the student.	1	2	3	4	5	
14. Uses innovation within own fieldwork setting to enhance the student learning experience during fieldwork.	1	2	3	4	5	

(continued)

Self-Assessment Tool for Fieldwork Educator Competency

D. EVALUATION COMPETENCIES	KEY DEFINITION STATEMENT: *The fieldwork educator evaluates student performance to achieve entry-level practice in the fieldwork setting.*					
The fieldwork educator:	CIRCLE ONE Low Proficient				High Proficient	COMMENTS
1. Reviews the evaluation tool and expected entry-level expectations (e.g., behavioral objectives, weekly objectives, etc.) with student prior to mid-term and final.	1	2	3	4	5	
2. Assesses student according to performance standards based on objective information (e.g., direct observation, discussion with student, review of student's documentation, observation by others, etc.).	1	2	3	4	5	
3. Assesses student's performance based on appropriate OTA/OT entry-level roles of the fieldwork practice setting.	1	2	3	4	5	
4. Facilitates student self-reflection and self-assessment throughout the fieldwork and evaluation process.	1	2	3	4	5	
5. Uses an evaluation process to advise and guide the student regarding strengths and opportunities for growth based on site-specific objectives.	1	2	3	4	5	
6. Uses fieldwork evaluation tools to accurately measure student performance and provide feedback.	1	2	3	4	5	
7. Completes and distributes in a timely manner all evaluations regarding student performance, including but not limited to the midterm and final evaluation (e.g., AOTA Fieldwork Performance Evaluation, Fieldwork Experience Assessment Tool [FEAT], etc.).	1	2	3	4	5	
8. Guides the student in the use of the Fieldwork Performance Evaluation as a method of promoting continued professional growth and development.	1	2	3	4	5	
9. Documents student's fieldwork performance recognizing ethical and legal rights (e.g., due process, confidentiality, ADA, integrity).	1	2	3	4	5	

(continued)

Self-Assessment Tool for Fieldwork Educator Competency

E. ADMINISTRATION COMPETENCIES	KEY DEFINITION STATEMENT: *The fieldwork educator develops and/or implements an organized fieldwork program in keeping with legal and professional standards and environmental factors (physical, social, and cultural).*					
The fieldwork educator:	CIRCLE ONE Low Proficient				High Proficient	COMMENTS
1. Communicates and collaborates with academic programs to integrate the academic curriculum design during fieldwork.	1	2	3	4	5	
2. Implements a model FW program that supports the curriculum of the academic program.	1	2	3	4	5	
3. Seeks support from fieldwork site administration and staff to develop and implement the student fieldwork program.	1	2	3	4	5	
4. Designs and implements the fieldwork program in collaboration with the academic programs served and in accordance to ACOTE standards for Level I and Level II fieldwork (2008) (e.g., academic and fieldwork setting requirements, Standards of Practice, Code of Ethics, etc.).	1	2	3	4	5	
5. Ensures that the fieldwork program is sensitive to diversity and multi-cultural issues.	1	2	3	4	5	
6. Documents an organized, systematic fieldwork program (e.g., fieldwork manual, student expectations, weekly sequence of expectations, etc.).	1	2	3	4	5	
7. Schedules formal and informal meetings with the student to guide the fieldwork experience.	1	2	3	4	5	
8. Collaborates with the student to develop student learning objectives.						
9. Documents behavioral objectives to achieve fieldwork objectives and learning experiences appropriate for entry-level practice.	1	2	3	4	5	
10. Is knowledgeable in legal and health care policies that directly influence FW.	1	2	3	4	5	
11. Defines essential functions and roles of a fieldwork student, in compliance with legal and accreditation standards (e.g., ADA, Family Education Rights and Privacy Act, Joint Commission, fieldwork agreement, reimbursement mechanism, state regulations, etc.).	1	2	3	4	5	
12. Provides student work areas appropriate to fieldwork site (e.g., student safety, accessibility, supplies, etc.).	1	2	3	4	5	
13. Provides a complete orientation for student to fieldwork site (e.g., policies, procedures, student expectations, and responsibilities, etc.).	1	2	3	4	5	
14. Requires student compliance with the fieldwork site policies and procedures (HIPAA, OSHA regulations), mission, goals, philosophy, and safety standards.	1	2	3	4	5	
15. Submits required fieldwork documents to academic program in a timely manner to ensure current data is available (e.g., fieldwork evaluation, fieldwork agreements, fieldwork data form, etc.).	1	2	3	4	5	
16. Conducts ongoing fieldwork program evaluations and monitors changes in the program with student and staff input (e.g., Student Evaluation of Fieldwork Experience, Self-Assessment Tool for Fieldwork Competencies, etc.).	1	2	3	4	5	

(continued)

Self-Assessment Tool for Fieldwork Educator Competency

FIELDWORK EDUCATOR PROFESSIONAL DEVELOPMENT PLAN

NAME: _____

DATE: _____

Strengths: _____ _____ Areas to Develop: _____ _____		Independent Study	Academic Coursework	Workshops / Continuing Ed.	Student Feedback	Consult with Academic FW Coordinator	Presentations	Publications	Research Activities	Mentorship	Peer Review	Shared Supervision of Student	Target Date	Competed Date
Competency Areas to Address	Goals													

Appendix C
Concept Measures Table

Table C.1

Concept Measures Chart

Constructs	Definition	Indicator	Citations
Faculty perceptions of the professional practice competencies in traditional and nontraditional fieldwork educators	"The fieldwork educator demonstrates competencies in professional knowledge, skills, and judgment in occupational therapy practice that supports the client's engagement in meaningful occupation" (AOTA, 1997, p. 3).	Faculty perceptions of the level of fieldwork educators' professional practice competencies as indicated by Likert scale rating of relevant items indicated on the survey. The survey items include variables such as fieldwork educator performance in: collection and analysis of a client's occupational profile, incorporation of evidence-based research into occupational therapy practice, addressing psychosocial factors across setting as a reflection of a client-centered approach, knowledge of entry-level practice skills for the occupational therapist and occupational therapy assistant.	AOTA. (1997). *Self-assessment tool for fieldwork educator competency*. Retrieved from http://www.aota.org

(continued)

Table C.1 (continued)

Concept Measures Chart

Constructs	Definition	Indicator	Citations
Faculty perceptions of the education competencies in traditional and nontraditional fieldwork educators	"The fieldwork educator facilitates the student's development of professional clinical reasoning and its application to entry-level practice. The fieldwork educator assumes responsibility for ensuring her or his own competence as a fieldwork educator" (AOTA, 1997, p. 4).	Faculty perceptions of the level of fieldwork educators' education competencies as indicated by Likert scale rating of relevant items indicated on the survey. The survey items include variables such as fieldwork educator performance in: assessment of student's learning needs, demonstration of sensitivity to learning style, self-reflection as an educator, implementation of a professional development plan, use evidence-based research to guide student performance and learning strategies.	AOTA. (1997). *Self-assessment tool for fieldwork educator competency*. Retrieved from http://www.aota.org
Faculty perceptions of the supervision competencies that typically exist in traditional and nontraditional fieldwork educators	"The fieldwork educator facilitates student achievement of entry-level practice through a student-centered approach" (AOTA, 1997, p. 5).	Faculty perceptions of the level of supervision competencies as indicated by Likert scale rating of relevant items indicated on the survey. The survey items include variables such as fieldwork educator performance in: the use of current supervision models and theories to facilitate student performance and professionalism, preparing student for challenging situations, initiating interaction to resolve conflict, and use of innovation in teaching.	AOTA. (1997). *Self-assessment tool for fieldwork educator competency*. Retrieved from http://www.aota.org

(continued)

Table C.1 (continued)

Concept Measures Chart

Constructs	Definition	Indicator	Citations
Faculty perceptions of the evaluation competencies that typically exist in traditional and nontraditional fieldwork educators	"The fieldwork educator evaluates student performance to achieve entry-level practice in the fieldwork setting" (AOTA, 1997, p. 6).	Faculty perceptions of evaluation competencies as indicated by Likert scale rating for items indicated on the survey. The survey items include variables such as fieldwork educator performance in: review of the evaluation tool and expected entry-level expectations, assessment of student performance based on appropriate entry-level roles, facilitation of student self-reflection and self-assessment throughout fieldwork and evaluation process, documentation, and recognizing ethical and legal rights.	AOTA. (1997). *Self-assessment tool for fieldwork educator competency*. Retrieved from http://www.aota.org
Faculty perceptions of the administration competencies that typically exist in traditional and nontraditional fieldwork educators	"The fieldwork educator develops and/or implements an organized fieldwork program in keeping with legal and professional standards and environmental factors (physical, social, and cultural)" (AOTA, 1997, p. 7).	Faculty perceptions of administration competencies as indicated by Likert scale rating for items indicated on the survey. The survey items include variables such as fieldwork educator performance in: communication and collaboration with academic programs, sensitivity to diversity, knowledge of legal and health care policies that influence fieldwork, providing student work areas, orienting student to fieldwork site, timely documentation, etc.	AOTA. (1997). *Self-assessment tool for fieldwork educator competency*. Retrieved from http://www.aota.org

Appendix D
Needs Assessment Data

Table D.1

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional *M*	Traditional *SD*	Role-emerging *M*	Role-emerging *SD*	*n*	95% CI for Mean Difference	*r*	*t*	Cohen's *d*
A. Professional Practice Competencies									
A.1. To what degree does a fieldwork educator use a systematic approach to evaluation and intervention that is science-driven and focused on clients' occupational performance needs?	3.82	0.63	3.29	1.04	17	[-0.15, 1.21]	-.19	1.64	0.39
A.2. To what extent does a fieldwork educator skillfully collect and analyze clients' occupational profile and performance in order to develop and implement OT services?	4.12	0.78	3.00	1.38	17	[0.34, 1.88]	.06*	3.08*	0.74
A.3. To what extent does a fieldwork educator consider context, activity demands, and client factors when determining feasibility and appropriateness of interventions?	4.00	0.93	3.47	1.23	17	[-0.15, 1.21]	.27	1.64	0.39

(continued)

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional *M*	Traditional *SD*	Role-emerging *M*	Role-emerging *SD*	*n*	95% CI for Mean Difference	*r*	*t*	Cohen's *d*
A. Professional Practice Competencies									
A.4. To what extent does a fieldwork educator understand clients' concerns, occupational performance issues, and safety factors for participation in intervention?	4.35	0.70	3.82	1.13	17	[-0.15, 1.21]	.00	1.64	0.39
A.5. To what degree does a fieldwork educator articulate the rationale and theoretical model, frame of reference and/or therapeutic approach for OT services?	3.71	1.16	3.00	1.58	17	[-0.41, 1.82]	-.23	1.34	0.32
A.6. To what extent does a fieldwork educator incorporate evidence-based research into occupational therapy practice?	3.53	0.80	3.00	1.50	17	[-0.48, 1.54]	-.41	1.10	0.26
A.7. To what extent does a fieldwork educator collaborate with the OT/OTA to provide evaluation, interpretation of data, intervention planning, intervention, discharge planning, and documentation?	4.29	0.84	3.24	1.39	17	[0.09, 2.02]	-.37*	2.31*	0.56

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional M	Traditional SD	Role-emerging *M*	Role-emerging *SD*	*n*	95% CI for Mean Difference	*r*	*t*	Cohen's *d*
A. Professional Practice Competencies									
A.8. To what extent does a fieldwork educator collaborate with individuals, colleagues, family/support system, and other staff or professionals with respect, sensitivity, and professional judgment?	4.29	0.84	4.06	0.89	17	[-0.38, 0.85]	.05	0.80	0.19
A.9. To what degree does a fieldwork educator work to establish a collaborative relationship that values the client perspective including diversity, values, beliefs, health, and well-being as defined by the client?	4.29	0.68	4.12	0.99	17	[-0.37, 0.72]	.22	0.67	0.16
A.10. To what extent does a fieldwork educator address psychosocial factors across the OT practice setting as a reflection of a client-centered approach?	3.94	0.82	3.94	1.19	17	[-0.79, 0.79]	-.13	0.00	0.00

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional		Role-emerging			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	Cohen's *d*
A. Professional Practice Competencies									
A.11. To what extent does a fieldwork educator effectively manage and prioritize client-centered services (e.g., intervention, documentation, team meetings, etc.) that support occupation-based outcomes?	4.18	0.88	3.82	1.13	17	[-0.39, 1.10]	-.02	1.00	0.24
A.12. To what degree does a fieldwork educator incorporate legal, ethical, and professional issues that influence practice (e.g., reimbursement, confidentiality, role delineation, etc.)?	4.06	1.02	3.65	0.99	17	[-0.38, 1.20]	-.16	1.10	0.26
A.13. To what extent does a fieldwork educator articulate and implement OTA/OT role delineations as relevant to the practice setting?	4.18	0.88	3.47	1.46	17	[-0.28, 1.69]	-.31	1.50	0.36
A.14. To what extent does a fieldwork educator adhere to professional standards of practice and code of ethics as identified by AOTA and state regulatory boards?	4.35	0.70	3.65	1.53	17	[-0.23, 1.64]	-.22	1.59	0.38

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional		Role-emerging			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	Cohen's *d*
A. Professional Practice Competencies									
A.15. To what extent does a fieldwork educator assume responsibility for and pursue professional development to expand knowledge and skills (e.g., understands own strengths and limitations, etc.)?	4.00	0.79	3.65	1.11	17	[-0.39, 1.10]	-.14	1.00	0.24
A.16. To what degree is a fieldwork educator knowledgeable regarding entry-level practice skills for the OT and OTA?	4.24	0.56	3.41	1.32	17	[-0.09, 1.73]	-.72*	1.91*	0.46
B. Education Competencies									
B.1. To what extent does a fieldwork educator provide ongoing assessment of a student's individual learning needs based on review of academic curriculum design, OTA and OT roles, prior experiences, and current performance level?	3.41	1.00	3.18	1.18	17	[-0.50, 0.97]	.14	0.67	0.16

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional		Role-emerging			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	Cohen's *d*
B. Education Competencies									
B.2. To what extent does a fieldwork educator collaboratively develop student and fieldwork learning contracts to support occupation-based fieldwork experience?	3.29	0.58	3.29	1.26	17	[-0.72, 0.72]	-.04	0.00	0.00
B.3. To what degree does a fieldwork educator sequence learning experiences to grade progression toward entry-level practice?	4.06	0.55	3.35	1.11	17	[0.03, 1.38]	-.13	2.21	0.53
B.4. To what extent does a fieldwork educator facilitate student-directed learning within the parameters of the fieldwork environment?	4.00	0.61	3.82	1.28	17	[-0.64, 0.99]	-.31	0.45	0.11
B.5. To what extent does a fieldwork educator maximize opportunities for learning by using planned and unplanned experiences within the fieldwork environment?	4.00	0.79	4.00	1.06	17	[-0.63, 0.63]	.14	0.00	0.00

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional		Role-emerging			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	Cohen's *d*
B. Education Competencies									
B.6. To what degree does a fieldwork educator use a variety of instructional strategies to facilitate the learning process (e.g., role modeling, co-intervention, videotaping, etc.)?	3.59	0.93	3.53	1.06	17	[-0.52, 0.64]	.35	0.21	0.05
B.7. To what extent does a fieldwork educator adapt his/her approach to work effectively with all students, including those who have physical and/or psychosocial impairment(s)?	3.59	1.12	3.65	1.16	17	[-0.75, 0.63]	.31	-0.18	-0.04
B.8. To what extent does a fieldwork educator demonstrate sensitivity to student learning style to adapt teaching approach for diverse student populations?	3.29	0.84	3.35	1.22	17	[-0.70, 0.58]	.31	-0.19	-0.47
B.9. To what degree does a fieldwork educator guide student integration of therapeutic concepts and skills?	3.65	0.93	3.47	1.32	17	[-0.43, 0.78]	.49	0.61	0.14

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional		Role-emerging			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	Cohen's *d*
B. Education Competencies									
B.10. To what degree does a fieldwork educator reflect upon educator role as complimentary to OT practitioner role?	3.65	0.93	3.35	1.45	17	[-0.42, 1.01]	.37	0.86	0.21
B.11. To what degree does a fieldwork educator self-identify and implement a Fieldwork Educator Professional Development Plan?	2.71	1.10	2.53	1.46	17	[-0.45, 0.81]	.56	0.58	0.14
B.12. To what extent does a fieldwork educator identify resources to promote student and fieldwork educator professional development?	3.41	0.71	3.12	1.53	17	[-0.49, 1.08]	.23	0.79	0.19
B.13. To what extent does a fieldwork educator provide reference materials to promote student and fieldwork educator professional development and use of EBP?	3.41	0.71	3.47	1.62	17	[-0.86, 0.74]	.30	-0.15	-0.03

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional		Role-emerging			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	Cohen's *d*
B. Education Competencies									
B.14. To what degree does a fieldwork educator use evidence-based research to guide student performance and learning for effective teaching strategies?	3.18	1.01	3.06	1.43	17	[-0.71, 0.94]	.16	0.30	0.07
C. Supervision Competencies									
C.1. To what extent does a fieldwork educator use current supervision models and theories to facilitation student performance and professional behavior?	3.06	0.89	3.00	1.12	17	[-0.63, 0.75]	.27	0.18	0.04
C.2. To what extent does a fieldwork educator present clear expectation of performance throughout the fieldwork experience, appropriate to entry-level OT practice (e.g., student OTA/OT role delineation, Level I/II fieldwork)?	3.94	0.65	3.76	1.03	17	[-0.27, 0.63]	.53	0.82	0.20

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional		Role-emerging			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	Cohen's *d*
C. Supervision Competencies									
C.3. To what degree does a fieldwork educator anticipate and prepare students for challenging situations?	3.71	0.68	3.65	1.05	17	[-0.40, 0.52]	.53	0.27	0.06
C.4. To what extent does a fieldwork educator provide activities to challenge the students' optimal performance?	3.82	0.63	3.71	1.04	17	[-0.42, 0.65]	.29	0.46	0.11
C.5. To what extent does a fieldwork educator provide the student with prompt, direct, specific, and constructive feedback throughout the fieldwork experience?	4.12	0.60	3.47	1.12	17	[0.07, 1.22]	.28	2.39	0.58
C.6. To what degree does a fieldwork educator use a progression of supervisory approaches throughout the student learning cycle to facilitate student performance?	4.00	0.50	3.59	1.22	17	[-0.19, 1.01]	.30	1.44	0.35

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional *M*	Traditional *SD*	Role-emerging *M*	Role-emerging *SD*	*n*	95% CI for Mean Difference	*r*	*t*	Cohen's *d*
C. Supervision Competencies									
C.7. To what extent does a fieldwork educator use a variety of strategies to provide communication and feedback to promote student professional development?	3.71	0.77	3.47	1.37	17	[-0.40, 0.87]	.43	0.75	0.18
C.8. To what extent is a fieldwork educator aware of his or her own personal style of supervision and is able to adapt the approach in response to student performance?	3.71	0.98	3.47	1.32	17	[-0.22, 0.70]	.73	1.07	0.26
C.9. To what extent does a fieldwork educator initiate interaction to resolve conflict and to raise issues of concern?	3.71	0.77	3.65	1.22	17	[-0.63, 0.75]	.14	0.18	0.04
C.10. To what extent does a fieldwork educator elicit and respond to the students' feedback and concerns?	3.82	0.72	3.88	1.11	17	[-0.75, 0.63]	.20*	-1.95*	-0.04

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional *M*	Traditional *SD*	Role-emerging *M*	Role-emerging *SD*	*n*	95% CI for Mean Difference	*r*	*t*	Cohen's *d*
C. Supervision Competencies									
C.11. To what extent does a fieldwork educator collaborate with the student and academic fieldwork coordinator to identify and modify learning environments when the student experiences difficulty?	3.65	1.05	4.00	1.27	17	[-1.03, 0.32]	.37	-1.10	-0.26
C.12. To what degree does a fieldwork educator model appropriate professional behaviors when interacting with students, clients, and peers?	4.06	0.74	4.12	0.92	17	[-0.61, 0.50]	.17	-0.22	-0.05
C.13. To what extent does a fieldwork educator consult with other fieldwork educators and sites to develop creative learning experiences for the student?	3.18	0.88	3.82	1.23	17	[-1.35, 0.05]	.20*	-1.95*	-0.47
C.14. To what degree does a fieldwork educator use innovation within own fieldwork setting to enhance the student learning experience during fieldwork?	3.24	0.97	3.71	1.10	17	[-1.20, 0.25]	.06	-1.36	-0.33

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional		Role-emerging			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	Cohen's *d*
D. Evaluation Competencies									
D.1. To what extent does a fieldwork educator review the evaluation tool and expected entry-level expectations with student prior to mid-term and final?	3.65	0.93	3.65	1.16	17	[-0.74, 0.74]	.05	0.00	0.00
D.2. To what extent does a fieldwork educator assess student according to performance standards-based on objective information?	4.18	0.72	3.76	1.12	17	[-0.29, 1.11]	.05	1.23	0.30
D.3. To what extent does a fieldwork educator assess the student's performance based on appropriate OTA/OT entry-level roles of the fieldwork practice setting?	4.06	0.74	3.59	1.37	17	[-0.23, 1.17]	.26	1.41	0.34
D.4. To what extent does a fieldwork educator facilitate student self-reflection and self-assessment throughout the fieldwork and evaluation process?	3.76	0.83	3.88	0.92	17	[-0.88, 0.65]	-.44	-0.32	-0.07

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional		Role-emerging			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	Cohen's *d*
D. Evaluation Competencies									
D.5. To what degree does a fieldwork educator use an evaluation process to advise and guide the student regarding strengths and opportunities for growth based on site-specific objectives?	3.65	0.93	3.71	1.16	17	[-0.77, 0.65]	.12	-0.17	-0.04
D.6. To what degree does a fieldwork educator use fieldwork evaluation tools to accurately measure student performance and provide feedback?	3.47	0.87	3.53	1.06	17	[-0.70, 0.58]	.18	-0.19	-0.04
D.7. To what extent does a fieldwork educator complete and distribute in a timely manner all evaluations regarding student performance, including but not limited to the midterm and final evaluation?	4.00	0.79	3.94	0.82	17	[-0.55, 0.67]	-.09	0.20	0.04

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional		Role-emerging			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	Cohen's *d*
D. Evaluation Competencies									
D.8. To what degree does a fieldwork educator guide the student in the use of the Fieldwork Performance Evaluation as a method of promoting continued professional growth and development?	3.35	0.86	3.35	1.11	17	[-0.60, 0.60]	.31	0.00	0.00
D.9. To what extent does the fieldwork educator document the student's fieldwork performance, recognizing ethical and legal rights?	3.76	0.90	3.59	1.27	17	[-0.55, 0.90]	.18	0.51	0.12
E. Administration Competencies									
E.1. To what degree does a fieldwork educator communicate and collaborate with academic programs to integrate the academic curriculum design during fieldwork?	2.76	0.83	3.41	1.27	17	[-1.39, 0.10]	.09*	-1.83*	-0.44
E.2. To what degree does a fieldwork educator implement a model fieldwork program that supports the curriculum of the academic program?	2.82	1.01	3.29	1.35	17	[-1.30, 0.36]	.08	-1.19	-0.29

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional		Role-emerging			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	Cohen's *d*
E. Administration Competencies									
E.3. To what extent does a fieldwork educator seek support from fieldwork site administration and staff to develop and implement the student fieldwork program?	2.94	0.96	3.65	1.22	17	[-1.38, -0.31]	.29*	-2.21*	-0.53
E.4. To what extent does a fieldwork educator design and implement the fieldwork program in collaboration with the academic programs served and in accordance to ACOTE standards for Level I and Level II fieldwork?	2.94	1.34	3.41	1.32	17	[-1.36, 0.42]	.15	-1.17	-0.27
E.5. To what extent does a fieldwork educator ensure that the fieldwork program is sensitive to diversity and multi-cultural issues?	3.47	0.71	3.88	0.92	17	[-0.98, 0.16]	.08	-1.51	-0.36
E.6. To what extent does a fieldwork educator document an organized, systematic fieldwork program?	3.24	1.14	3.24	1.30	17	[-0.63, 0.63]	.50	0.00	0.00

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional *M*	Traditional *SD*	Role-emerging *M*	Role-emerging *SD*	*n*	95% CI for Mean Difference	*r*	*t*	Cohen's *d*
E. Administration Competencies									
E.7. To what extent does a fieldwork educator schedule formal and informal meetings with the student to guide the fieldwork experience?	3.71	0.68	3.94	1.24	17	[-0.97, 0.50]	-.02	-0.67	-0.16
E.8. To what degree does a fieldwork educator collaborate with the student to develop student learning objectives?	3.18	10.1	3.18	1.07	17	[-0.60, 0.60]	.37	0.00	0.00
E.9. To what extent does a fieldwork educator document behavioral objectives to achieve fieldwork objectives and learning experiences appropriate for entry-level practice?	3.47	1.12	3.76	1.25	17	[-0.65, 0.65]	.09	0.00	0.00
E.10. To what extent is a fieldwork educator knowledgeable in legal and health care policies that directly influence fieldwork?	3.76	1.25	3.65	1.32	17	[-0.82, 1.06]	-.01	0.26	0.06

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional		Role-emerging			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	Cohen's *d*
E. Administration Competencies									
E.11. To what extent does a fieldwork educator define essential functions and roles of a fieldwork student, in compliance with legal and accreditation standards?	3.65	1.27	3.41	1.32	17	[-0.56, 1.03]	.27	0.62	0.15
E.12. To what extent does a fieldwork educator provide to the student work areas appropriate to the fieldwork site?	3.82	0.80	3.71	1.10	17	[-0.48, 0.71]	.28	0.41	0.10
E.13. To what extent does a fieldwork educator provide a complete orientation for the students to fieldwork site?	3.88	0.85	3.82	1.13	17	[-0.55, 0.67]	.29	0.20	0.04
E.14. To what extent does a fieldwork educator require student compliance with the fieldwork site policies and procedures (HIPAA, OSHA regulations), mission, goals, philosophy, and safety standards?	4.53	0.71	4.35	0.86	17	[-0.23, 0.59]	.48	0.89	0.21

Table D.1 (continued)

Descriptive Statistics and t-test results for the SAFECOM instrument

Outcome	Traditional		Role-emerging			95% CI for Mean Difference			
	M	*SD*	*M*	*SD*	*n*		*r*	*t*	Cohen's *d*
E. Administration Competencies									
E.15. To what extent does a fieldwork educator submit required fieldwork documents to academic program in a timely manner to ensure current data is available (e.g., fieldwork evaluation, fieldwork agreements, fieldwork data form, etc.)?	4.00	1.00	4.00	1.06	17	[-0.51, 0.51]	.53	0.00	0.00
E.16. To what degree does a fieldwork coordinator conduct ongoing fieldwork program evaluations and monitor changes in the program with student and staff input (e.g., Student Evaluation of Fieldwork Experience, Self-Assessment Tool for Fieldwork Competencies, etc.)?	Not analyzed secondary to an error in transcribing the item into Qualtrics								

Note. CI = confidence interval
$p < .05$
$df = 16$

Appendix E
Permission to Use Social Determinants of Health Framework

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April 6, 2018 **Reference #: 04061801**

Shirish J. Lala, MHS, OTR/L
Occupational Therapy Assistant Program
Daytona State College
1200 W International Speedway Blvd.
Daytona Beach, FL 32114

Dear Ms. Lala,

You have requested permission to reproduce the following material copyrighted by the National Academy of Sciences in your dissertation:

Figures S-1 and S-2, A Framework for Educating Health Professionals to Address the Social Determinants of Health, 2016

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Appendix F
Health Literacy Expanded Framework

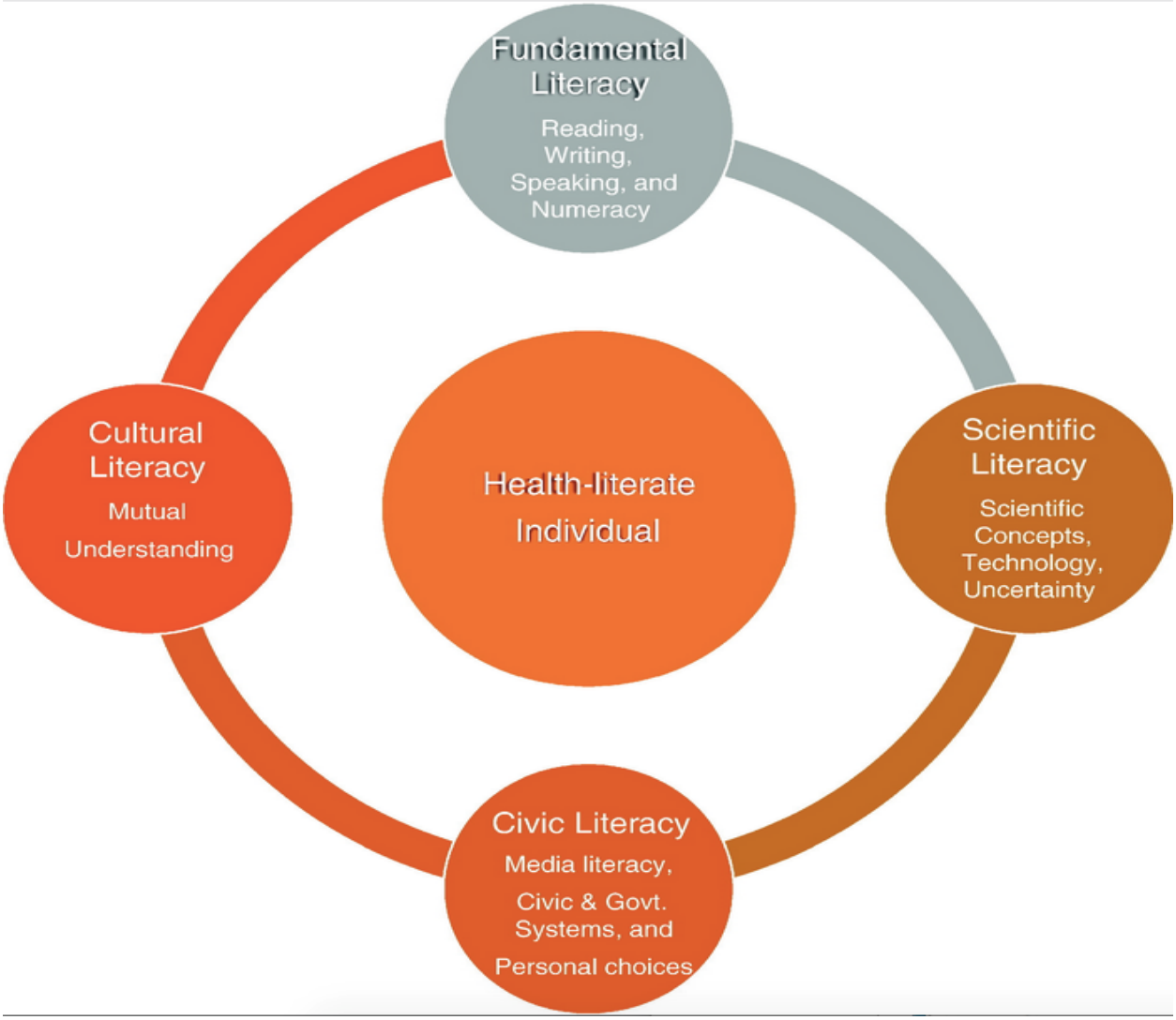

Figure F. Conceptual model used to develop training programs in health literacy. Health Literacy Expanded Framework. Reprinted from *Advancing health literacy: A framework for understanding and action,* by C. Zarcadoolas, A. F. Pleasant, & D.S. Greer, 2007, San Francisco, CA: Jossey-Bass. Copyright 2007 by Jossey-Bass.[1]

[1] See Appendix G

Appendix G
Permission for Reproducing Figure in Appendix F

Re: Permission Requested

Christina Zarcadoolas <czarcadoolas@gmail.com>
Fri 7/26/2019 10:35 AM
To: Shirish Lala <Shirish.Lala@daytonastate.edu>

CAUTION: This email came from outside Daytona State.

Hello Shirish
Of course you can use the visual. Thank you for asking. And your dissertation work - what aspects of health literacy are you looking at? Would love to hear more.
Best,
Christina

Christina Zarcadoolas PhD

Healthliteracylab.com

https://www.facebook.com/healthliteracylab/

On Jul 26, 2019, at 12:54 AM, Shirish Lala <Shirish.Lala@daytonastate.edu> wrote:

> Hello Dr. Zarcadoolas,
>
> I hope you are well. I am a doctoral student at the Johns Hopkins' School of Education. I have included your work in my dissertation on the topic of workplace learning in occupational therapy. I was wondering if you would permit me to reproduce this attached image in my dissertation. If so, I will provide credit to you and your colleagues as follows:
>
> *Figure A.* Health Literacy Expanded Framework. Reproduced from Zarcadoolas, C., Pleasant, A. F., & Greer, D. S. (2007). *Advancing health literacy: A framework for understanding and action*. San Francisco, CA: Jossey-Bass. This conceptual model is used to develop training programs in health literacy.
>
> <pastedImage.png>
>
> Please let me know. Thank you!
>
> Sincerely,
>
> Shirish Lala, MHS, OTR/L
> Academic Clinical Coordinator
> Occupational Therapy Assistant Program
> Daytona State College
> Daytona Beach, FL
> Office#:386-506-3850
> Cell #: 386-216-0398
> Fax #: 386-506-3300

Appendix H
Process Evaluation Questions for the SP program

Fidelity

To what extent was each of the program elements implemented as planned?

Dose Delivered

Did the OT assistant faculty deliver all the components of the fieldwork program as originally conceptualized?

Dose Received

Did the students enjoy the SP program module and related activities?

Reach

Was the SP program module included in the curriculum delivered to at least 80% of the students enrolled in the senior year of the occupational therapy assistant (OTA) program?

Recruitment

What procedures were followed to orient and debrief students before participating in the SP program?

Context/External factors

Did the school allow faculty to meet a common time for SP program development and planning?

Did the school provide release time for faculty to attend training in SP and simulation education?

Barriers

What barriers were encountered when delivering the trainings as scheduled?

Appendix I
Process Evaluation Plan for Standardized Patient Program in the OT assistant Curriculum

Table I.1

Process Evaluation Plan

Process Evaluation Component	Conceptualization	Working definition	Qualitative aspects	Quantitative aspects	Alignment with Logic Model (LM) and Theory of Treatment (ToT)
Program Implementation	Incorporate criteria recommended the WinDix training manual for training SPs to provide effective feedback (May, 2006).	A combination of program adherence with the guidelines in the training manual, quality of debriefing in the SP program, and how it was received by students and faculty (Parker et al., 2015).	Quality of instruction during the SP program sessions as measured by questions for faculty, preceptors, and employers during semi-structured interviews (Holliday, 2014).	Ratings about the SP training as reported by students on the Simulation Design Scale and Educational Practices Questionnaire (NLN, 2005).	Questions included in the interviews combined with selected survey questions (NLN, 2005) will provide insight into the mediators that influence the short-term outcomes in the LM and ToT (O'Donnell, 2008).
Context	Meet recommended criteria for favorable environmental supports for the SP program (Wallace, 2006). Both fidelity implementation data about the context and adaptations will be monitored (Holliday, 2006).	A combination of physical, economic, social, and political elements that impact student, SP, and faculty performance in simulation labs (Linnan & Steckler, 2002; Nestel & Bearman, 2014).	Types of contextual factors such as physical, cultural, personal, social, and virtual as measured by questions in the semi-structured interviews (Holliday, 2014).	Number of problems arising due to limited lab space, scheduling of lab space, quality of simulation technology as measured by survey instruments (NLN, 2005) and semi-structured interviews (Holliday, 2014).	Questions included in the interviews combined with some survey questions (NLN, 2005) will provide insight into the mediators and moderators of the LM.

(continued)

Table I.1 continued

Process Evaluation Plan

Process Evaluation Component	Conceptualization	Working definition	Qualitative aspects	Quantitative aspects	Alignment with Logic Model (LM) and Theory of Treatment (ToT)
Fidelity of implementation: Participation responsiveness	At least 90% of the class will be actively engaged in participation in SP labs. This criterion could be established in the fieldwork program strategic plan to help create a hierarchy of levels of simulation use (O'Donnell, 2008).	The extent to which the participants found the SP program relevant to the curricular design (Schulte, Easton, & Parker, 2009).	Relevance and fidelity (i.e., how real were the simulated experiences) as measured by questions for faculty, preceptors, and employers in semi-structured interviews (Holliday, 2014).	The relevance of simulation as measured by how survey items were rated on survey instruments, particularly the Educational Practices Questionnaire and the Simulation Design Scale (NLN, 2005).	The questions included in the interviews combined with survey questions (NLN, 2005) will provide insight into the mediators and moderators included in the LM.
Barriers	Faculty and preceptors will identify barriers in treatment dosage (delivered and received) including problems in recruitment and retention of participants for the study (Saunders et al., 2005).	The extent to which problems were experienced in reaching subjects.	Types of barriers as measured by questions for faculty, preceptors, and employers in semi-structured interviews (Holliday, 2014).	Number of reported barriers during interviews. Achieve a minimum power of 80% on the G* Power 3.1.7 calculation for minimum sample size required for the study (as cited by Parker et al., 2015).	The qualitative and quantitative aspects will reinforce knowledge of the moderating and mediating variables of the LM.

Appendix J
Summary Matrix

Table J.1

Summary Matrix

Research Question	Constructs	Measures and Instrumentation	Data Collection	Data Analysis
RQ 1: To what extent were each of the program elements implemented as planned in traditional, role-emerging, and simulated settings?	Student perceptions as reported on NLN (2005) scales, and interviews with faculty	Simulation Design Scale, Educational Practices Questionnaire, Student Satisfaction and Self-Confidence in Learning Scale (NLN, 2005), including interview questions	Qualtrics survey, Faculty interviews*	Descriptive Statistics, Wilcoxon signed rank test, Thematic analysis with saliency matrix (Buetow, 2010)
RQ 2: What are the students' perceptions of design elements of fieldwork experiences in traditional, role-emerging, and simulated settings?	Student perceptions as reported on the Simulation Design Scale (NLN, 2005)	Simulation Design Scale (NLN, 2005)	Qualtrics survey, Stakeholder interviews*	Descriptive Statistics, Wilcoxon signed rank test, Friedman test, Kendall's *W*
RQ 3: What are the students' perceptions of educational practices during fieldwork in traditional, role-emerging, and simulated settings?	Student perceptions as reported on the Educational Practices Questionnaire (NLN, 2005)	Educational Practices Questionnaire (NLN, 2005)	Qualtrics survey, Stakeholder interviews*	Descriptive Statistics, Wilcoxon signed rank test, Friedman test, Kendall's *W*

(continued)

Table J.1 (continued)

Summary Matrix

Research Question	Constructs	Measures and Instrumentation	Data Collection	Data Analysis
RQ 4: How do stakeholders such as faculty, fieldwork educators, and potential employers perceive student fieldwork experiences in traditional, role-emerging, and simulated settings?	Faculty, fieldwork educators and potential employer perceptions of the trainings	Interview questions	Stakeholder interviews*	Thematic analysis with saliency matrix (Buetow, 2010)
RQ 5: How do students perceive their satisfaction with learning during fieldwork experiences in traditional, role-emerging, and simulated settings?	Student perceptions reported on the Student Satisfaction and Self-Confidence in Learning Scale (NLN, 2005)	Student Satisfaction and Self-Confidence in Learning Scale	Qualtrics survey, Stakeholder interviews*	Descriptive Statistics, Wilcoxon signed rank test, Friedman test, Kendall's *W*
RQ 6: How do students perceive their confidence during fieldwork experiences in traditional, role-emerging, and simulated settings?	Student perceptions reported on the Student Satisfaction and Self-Confidence in Learning Scale (NLN, 2005)	Student Satisfaction and Self-Confidence in Learning Scale	Qualtrics Survey, Stakeholder interviews*	Descriptive Statistics, Wilcoxon signed rank test, Friedman test, Kendall's *W*

* Qualitative interviews with faculty, fieldwork educators and potential employers

Appendix K
Informed Consent for the Investigation

JOHNS HOPKINS UNIVERSITY
HOMEWOOD INSTITUTIONAL REVIEW BOARD (HIRB)
RESEARCH PARTICIPANT INFORMED CONSENT FORM

Study Title: Occupational Therapy Stakeholders' Perspectives of Level I Fieldwork Opportunities: A Mixed Methods Comparison

Application No.: HIRB00009738/AM00010359

Principal Investigator: Dr. Jonathan A. Plucker, PhD
School of Education
Johns Hopkins University
443-555-3636
jplucke1@jhu.edu

You are being asked to join a research study. Participation in this study is voluntary. Even if you decide to join now, you can change your mind later.

PURPOSE OF RESEARCH STUDY: The primary purpose of this research study is to compare occupational therapy stakeholder perceptions of workplace training provided in simulation, traditional, and role-emerging settings. This is a student research project that is a part of Shirish Lala's Doctor of Education (Ed.D.) dissertation at Johns Hopkins University, School of Education.

PROCEDURES:

Students will be asked to complete three surveys after completing their experiential training in each of the following locations: (a) simulation lab with standardized patients; (b) traditional placement; and (c) role-emerging setting. Faculty, fieldwork educators, and potential employers will be interviewed in person or virtually to corroborate the results from the surveys.

Survey responses will be collected in electronic format. Survey data completed electronically will be collected via a password protected Qualtrics account that belongs to the Johns Hopkins University School of Education. If the participant is unable to complete the surveys electronically, paper copies will be provided via mail. In both electronic and paper format, the data will not include any identifiable information.

Quantitative Research Phase: The quantitative phase of the research is being conducted with students at AdventHealth University, Orlando. Former students previously affiliated with AdventHealth University may join. You may not qualify for this study if you have prior simulation training experience with standardized patients in a professional program other than occupational therapy.

Time required: Approximately 20-25 minutes to complete each survey. Total time required to complete all three surveys will be around 60-65 minutes.

Qualitative Research Phase: Faculty, fieldwork educators, and potential employers associated with AdventHealth University and/or Daytona State College will be recruited for the qualitative phase of the research.

Time requires: Approximately 50 minutes for an interview.

RISKS/DISCOMFORTS:
There are no anticipated risks to participants.

BENEFITS:
The study may benefit academic programs to understand how students learn during experiential training which may likely help to maximize the time available for effective instruction.

Participants, particularly faculty, fieldwork educators, and employers, may have increased awareness about instructional strategies used in various field settings that can help students learn skills required for successful entry-level practice in occupational therapy.

VOLUNTARY PARTICIPATION AND RIGHT TO WITHDRAW:
Participation in this study is totally voluntary. You choose whether to participate. If you choose not to participate, there are no penalties.

You can stop participation in the study at any time, without any penalty or loss of benefits. If you want to withdraw from the study, or to stop participating, please contact Shirish J. Lala via phone or email: (386) 506-3850, slala3@jhu.edu

CONFIDENTIALITY:
Any study records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Johns Hopkins University Homewood Institutional Review Board, AdventHealth University Research Office, Daytona State College Institutional Review Board, and officials from government agencies such as the Office for Human Research Protections. All of these people are required to keep your identity confidential. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

All measures will be examined by the Principal Investigator and research affiliates only (including those entities described above). No identifiable information will be included in any reports of the research published or provided to school administration, clinic, or practice setting. A pseudonym or participant number will be assigned to all surveys that are recorded.

All research data will be kept in a locked office. Electronic data will be stored on the student investigator's computer, which is password protected. Any electronic files will be erased and paper documents shredded, ten years after collection.

COMPENSATION:
You will not receive any payment or other compensation for participating in this study.

IF YOU HAVE QUESTIONS OR CONCERNS:
You can ask questions about this research study at any time during the study by contacting Shirish J. Lala via phone or email: (386) 506-3850, slala3@jhu.edu

If you have questions about your rights as a research participant or feel that you have not been treated fairly, please call the Homewood Institutional Review Board at Johns Hopkins University at (410) 516-6580.

SIGNATURES

WHAT YOUR SIGNATURE MEANS:
Your signature below means that you understand the information in this consent form.
Your signature also means that you agree to participate in the study.
By signing this consent form, you have not waived any legal rights you would have as a participant in a research study.

_____	_____
Signature	**Date**
Name:	
Title:	
Comments:	

Shirish Lala	**8/20/19**
Name of Person Obtaining Consent (Investigator or HIRB-Approved Designee)	**Date**

Photographs/Video recordings:

As part of this research, we are requesting your permission to create and use photographs, audio and video recordings captured during simulation labs at AdventHealth University. Audio and video recordings may be captured during the interviews with educators and employers. Any images and recordings will not be used for advertising or non-study related purposes.

You should know that:

- You may request that the imaging/recording be stopped at any time.
- You may request that your face be blurred out completely in any photos and/or video recordings. Although your face will be blurred, you might be still identifiable in the photos/videos.
- If you agree to allow the photographs, video, or recording and then change your mind, you may ask us to destroy that imaging/recording. If the imaging/recording has had all identifiers removed, we may not be able to do this.
- We will only use these images and/or recordings for the purposes of this research and publication of the final dissertation manuscript.

Please indicate your decision below by checking the appropriate statement:

_____I **agree** to allow the study to make and use photographs/video recordings/audio recordings of me (or the participant I represent) for the purpose of this study, only if my face (or the face of the participant I represent) is completely blurred out in all photographs and videos.

_____I **do not agree** to allow the study team to make and use photographs/video recordings/audio recordings of me (or the participant I represent) for the purpose of this study.

_____

Participant Signature Date
(or Legally Authorized Representative Signature, if applicable)

WE WILL GIVE YOU A COPY OF THIS SIGNED AND DATED CONSENT FORM

_____

Signature of Participant (Print Name) Date/Time

_____

Signature of Person Obtaining Consent (Print Name) Date/Time

NOTE: A COPY OF THE SIGNED, DATED CONSENT FORM MUST BE KEPT BY THE PRINCIPAL INVESTIGATOR; A COPY MUST BE GIVEN TO THE PARTICIPANT.

Appendix L
Simulation Design Scale

Simulation Design Scale (Student Version)

In order to measure if the best simulation design elements were implemented in your simulation , please complete the survey below as you perceive it. There are no right or wrong answers, only your perceived amount of agreement or disagreement. Please use the following code to answer the questions.

Use the following rating system when assessing the simulation design elements:

1 - Strongly Disagree with the statement
2 - Disagree with the statement
3 - Undecided - you neither agree or disagree with the statement
4 - Agree with the statement
5 - Strongly Agree with the statement
NA - Not Applicable; the statement does not pertain to the simulation activity performed.

Rate each item based upon how important that item is **to you.**

1 - Not Important
2 - Somewhat Important
3 - Neutral
4 - Important
5 - Very Important

Item	1	2	3	4	5	NA	1	2	3	4	5
Objectives and Information											
1. There was enough information provided at the begining of the simulation to provide direction and encouragement.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
2. I clearly understood the purpose and objectives of the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
3. The simulation provided enough information in a clear matter for me to problem-solve the situation.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
4. There was enough information provided to me during the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
5. The cues were appropriate and geared to promote my understanding.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
Support											
6. Support was offered in a timely manner.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
7. My need for help was recognized.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
8. I felt supported by the teacher's assistance during the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
9. I was supported in the learning process.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5

(continued)

Use the following rating system when assessing the simulation design elements:

1 - Strongly Disagree with the statement
2 - Disagree with the statement
3 - Undecided - you neither agree or disagree with the statement
4 - Agree with the statement
5 - Strongly Agree with the statement
NA - Not Applicable; the statement does not pertain to the simulation activity performed.

Rate each item based upon how important that item is **to you.**

1 - Not Important
2 - Somewhat Important
3 - Neutral
4 - Important
5 - Very Important

Item	1	2	3	4	5	NA	1	2	3	4	5
Problem Solving											
10. Independent problem-solving was facilitated.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
11. I was encouraged to explore all possibilities of the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
12. The simulation was designed for my specific level of knowledge and skills.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
13. The simulation allowed me the opportunity to prioritize nursing assessments and care.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
14. The simulation provided me an opportunity to goal set for my patient.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
Feedback/Guided Reflection											
15. Feedback provided was constructive.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
16. Feedback was provided in a timely manner.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
17. The simulation allowed me to analyze my own behavior and actions.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
18. There was an opportunity after the simulation to obtain guidance/feedback from the teacher in order to build knowledge to another level.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
Fidelity (Realism)											
19. The scenario resembled a real-life situation.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
20. Real life factors, situations, and variables were built into the simulation scenario.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5

Appendix M
Educational Practices Questionnaire

Educational Practices Questionnaire (Student Version)

In order to measure if the best practices are being used in your simulation, please complete the survey below as you perceive it. There are no right or wrong answers, only your perceived amount of agreement or disagreement. Please use the following code to answer the questions.

Use the following rating system when assessing the educational practices:

1 - Strongly Disagree with the statement
2 - Disagree with the statement
3 - Undecided - you neither agree or disagree with the statement
4 - Agree with the statement
5 - Strongly Agree with the statement
NA - Not Applicable; the statement does not pertain to the simulation activity performed.

Rate each item based upon how important that item is **to you.**

1 - Not Important
2 - Somewhat Important
3 - Neutral
4 - Important
5 - Very Important

Item	1	2	3	4	5	NA	1	2	3	4	5
Active learning											
1. I had the opportunity during the simulation activity to discuss the ideas and concepts taught in the course with the teacher and other students.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
2. I actively participated in the debriefing session after the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
3. I had the opportunity to put more thought into my comments during the debriefing session.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
4. There were enough opportunities in the simulation to find out if I clearly understand the material.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
5. I learned from the comments made by the teacher before, during, or after the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
6. I received cues during the simulation in a timely manner.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
7. I had the chance to discuss the simulation objectives with my teacher.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
8. I had the opportunity to discuss ideas and concepts taught in the simulation with my instructor.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
9. The instructor was able to respond to the individual needs of learners during the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
10. Using simulation activities made my learning time more productive.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5

(continued)

Educational Practices Questionnaire (Student Version)

Use the following rating system when assessing the educational practices:

1 - Strongly Disagree with the statement
2 - Disagree with the statement
3 - Undecided - you neither agree or disagree with the statement
4 - Agree with the statement
5 - Strongly Agree with the statement
NA - Not Applicable; the statement does not pertain to the simulation activity performed.

Rate each item based upon how important that item is **to you.**

1 - Not Important
2 - Somewhat Important
3 - Neutral
4 - Important
5 - Very Important

Item	1	2	3	4	5	NA	1	2	3	4	5
Collaboration											
11. I had the chance to work with my peers during the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
12. During the simulation, my peers and I had to work on the clinical situation together.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
Diverse Ways of Learning :											
13. The simulation offered a variety of ways in which to learn the material.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
14. This simulation offered a variety ways of assessing my learning.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
High Expectations											
15. The objectives for the simulation experience were clear and easy to understand.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5
16. My instructor communicated the goals and expectations to accomplish during the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5	○ NA	○ 1	○ 2	○ 3	○ 4	○ 5

Appendix N
Student Satisfaction and Self-Confidence in Learning Scale

Student Satisfaction and Self-Confidence in Learning

Instructions: This questionnaire is a series of statements about your personal attitudes about the instruction you receive during your simulation activity. Each item represents a statement about your attitude toward your satisfaction with learning and self-confidence in obtaining the instruction you need. There are no right or wrong answers. You will probably agree with some of the statements and disagree with others. Please indicate your own personal feelings about each statement below by marking the numbers that best describe your attitude or beliefs. Please be truthful and describe your attitude as it really is, not what you would like for it to be. This is anonymous with the results being compiled as a group, not individually.

Mark:
1 = STRONGLY DISAGREE with the statement
2 = DISAGREE with the statement
3 = UNDECIDED - you neither agree or disagree with the statement
4 = AGREE with the statement
5 = STRONGLY AGREE with the statement

Satisfaction with Current Learning	**SD**	**D**	**UN**	**A**	**SA**
1. The teaching methods used in this simulation were helpful and effective.	○ 1	○ 2	○ 3	○ 4	○ 5
2. The simulation provided me with a variety of learning materials and activities to promote my learning the medical surgical curriculum.	○ 1	○ 2	○ 3	○ 4	○ 5
3. I enjoyed how my instructor taught the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5
4. The teaching materials used in this simulation were motivating and helped me to learn.	○ 1	○ 2	○ 3	○ 4	○ 5
5. The way my instructor(s) taught the simulation was suitable to the way I learn.	○ 1	○ 2	○ 3	○ 4	○ 5
Self-confidence in Learning	**SD**	**D**	**UN**	**A**	**SA**
6. I am confident that I am mastering the content of the simulation activity that my instructors presented to me.	○ 1	○ 2	○ 3	○ 4	○ 5
7. I am confident that this simulation covered critical content necessary for the mastery of medical surgical curriculum.	○ 1	○ 2	○ 3	○ 4	○ 5
8. I am confident that I am developing the skills and obtaining the required knowledge from this simulation to perform necessary tasks in a clinical setting	○ 1	○ 2	○ 3	○ 4	○ 5
9. My instructors used helpful resources to teach the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5
10. It is my responsibility as the student to learn what I need to know from this simulation activity.	○ 1	○ 2	○ 3	○ 4	○ 5
11. I know how to get help when I do not understand the concepts covered in the simulation.	○ 1	○ 2	○ 3	○ 4	○ 5
12. I know how to use simulation activities to learn critical aspects of these skills.	○ 1	○ 2	○ 3	○ 4	○ 5
13. It is the instructor's responsibility to tell me what I need to learn of the simulation activity content during class time..	○ 1	○ 2	○ 3	○ 4	○ 5

 Revised December 22, 2004

(continued)

Appendix O
Permission to Modify NLN (2005) Instruments

FW: Permission to modify NLN instruments

Shirish Lala <Shirish.Lala@daytonastate.edu>
Thu 9/19/2019 9:18 PM
To: slala3@jhu.edu <slala3@jhu.edu>

From: Mary Anne Rizzolo <mrizzolo@NLN.ORG>
Sent: Thursday, July 11, 2019 9:09 PM
To: Shirish Lala <Shirish.Lala@daytonastate.edu>
Subject: RE: Permission to modify NLN instruments

Please see this webpage (http://www.nln.org/professional-development-programs/research/tools-and-instruments), which states that you do not need specific permission when using the instruments for non-commercial use. The page also contains the information on how to cite and give attribution. Since you will be modifying the instruments, you will need to generate a new set of statistics for reliability, validity, etc.

Good luck with your study!

Mary Anne Rizzolo, EdD, RN, FAAN, ANEF, FSSH
Consultant, National League for Nursing
mrizzolo@nln.org
www.nln.org and http://sirc.nln.org

From: Shirish Lala <Shirish.Lala@daytonastate.edu>
Sent: Wednesday, July 10, 2019 9:22 PM
To: Mary Anne Rizzolo <mrizzolo@NLN.ORG>
Subject: Permission to modify NLN instruments
Importance: High

Hello Dr. Rizzolo,

I am a doctoral student at Johns Hopkins School of Education in Baltimore, MD. I am looking to replicate the attached study in occupational therapy education. I am in touch with Dr. Ramona Parker. Can you please give me permission to adapt the three NLN (2005) instruments referenced below? I am examining student perceptions in conventional medical settings, nontraditional facilities, and standardized patient programs.

Please let me know.

Thank you!

Reference:

National League for Nursing (2005). *Descriptions of available instruments.* Retrieved from http://www.nln.org/professional-development-programs/research/tools-and-instruments/descriptions-of-available-instruments

Appendix P
Merged Data Display

Table P.1

Integrated Results Matrix from Qualitative and Quantitative phases of the Study

Quantitative Results	Qualitative Results	Example Quote
Independent problem-solving facilitated with simulated practice yielded slightly better results than that in traditional fieldwork.	Simulated practice with SPs provides opportunities for problem-solving and critical thinking in a safe, controlled environment that could evoke less anxiety among students. This finding is particularly relevant as training in certain traditional settings can be negatively influenced by unreasonable productivity demands.	Participant U: "In this [simulated] setting, it gives them a chance to really, you know, critically think through options and if they get it wrong … then we are there to instruct them on what could have been better."
The instructors were better able to respond to the individual needs of the learners during nontraditional fieldwork as compared to simulated training.	Faculty perceived that students need to be carefully selected for fieldwork placements in role-emerging or community-based practice settings.	Participant V: "It's interesting because those nontraditional settings are completely different. Students are given more autonomy to guide the practice experience …. The student has more of a role … they absolutely have to take the initiative … they lead versus follow."
Students reported that they had more opportunities to work with their peers during nontraditional fieldwork than simulation.	Since nontraditional placements were faculty-led experiences, students learned by watching patients interact with their peers and faculty.	Participant V: "Students want that [nontraditional] experience to be able to share what they can bring [to the table] and then there's usually an 'aha' moment."

(continued)

Table P.1 (continued)

Integrated Results Matrix from Qualitative and Quantitative phases of the Study

Quantitative Results	Qualitative Results	Example Quote
Students perceived that they worked more on clinical situation(s) together in nontraditional settings than simulation.	Students employed creativity to transfer the didactic knowledge in role-emerging practice areas.	Participant V: "Students loved that they were able to work on Rock Steady kickboxing with Parkinson's patients which was really amazing for them to see."
Nontraditional fieldwork training offered more diverse ways of learning the material than simulated practice.	Students learned about referring low-income patients to essential community-based programs (e.g., food stamps) in nontraditional practice.	Participant Y: "The good thing is that [during nontraditional fieldwork, the students] can follow up with their instructor and say—I ran into this situation. This is what I did [to tackle the situation]."

Appendix Q
Polarity Map

Greater Purpose: Developing entry-level competencies in occupational therapy practice

Deeper Fear: Deficiencies in student achievement of entry-level competence

Pole: Traditional Fieldwork Training		**Pole:** Standardized Patient (SP) Programs		**Pole:** Nontraditional/Role-emerging Fieldwork	
Action Steps	**Benefits**	**Action Steps**	**Benefits**	**Action Steps**	**Benefits**
Focus on core competencies and skills required for entry-level practice (Costa, 2015).	Students witness powerful, life-altering events in the lives of actual patients (Costa, 2015).	Focus on core competencies and skills required for entry-level practice (Costa, 2015).	Promotes learning in a safe and non-threatening environment (Smith & Lammers, 2014).	Focus on core competencies and skills required for entry-level practice (Costa, 2015).	Provides opportunities to design population health interventions (Braveman, 2015).
Improve stakeholder knowledge and understanding of best practice in fieldwork education (Parker et al., 2015).	Sets the stage for advanced training in specialty areas such as oncology and burns management (Institute of Medicine, 2010).	Improve stakeholder knowledge and understanding of best practice in fieldwork education (Parker et al., 2015).	Provides opportunities to master skills with explicit, step-by-step, detailed instruction, with spaced practice (Bethea et al., 2014).	Improve stakeholder knowledge and understanding of best practice in faculty-led nontraditional practice (Hanson, 2011b).	Exposure to interprofessional collaboration, advocacy, and program development (Overton et al., 2009).
Initiate problem-based learning within the curriculum (Merriam & Bierema, 2014).	Interdisciplinary collaboration improves the quality of the training (Falzarano, 2010; Grenier, 2015).	Provide time to collaborate with other health professions during simulation (Falzarano, 2010).	Debriefing sessions post-simulation offer immediate feedback to improve performance (May, 2006).	Provide time to collaborate with other disciplines during the fieldwork (Falzarano, 2010; Grenier, 2015).	There is potential to expand the role of OT at specific nontraditional sites (Costa, 2015).
Provide professional development for fieldwork educators (Housel, Gandy, & Edmondson, 2010).	Creates job opportunities for students in field settings (Costa, 2015).	Provide opportunities to integrate simulated training within medical settings (Hayden et al., 2014).	Enhance student critical thinking, clinical reasoning, judgment, and communication skills (Lasater, 2007).	Develop options to integrate nontraditional fieldwork with contemporary practice (Hayden et al., 2014).	Emphasis on autonomy, creativity, lifelong learning, and evidence-based practice (Overton et al., 2009).

(continued)

Polarity Map (continued)

Early Warning Signs:	Potential Drawbacks:	Early Warning Signs:	Potential Drawbacks:	Early Warning Signs:	Potential Drawbacks:
Dwindling rate of acceptance of fieldwork students in high-performing medical systems (Brown et al., 2015).	Limited time available to fieldwork educators to train students in traditional settings (Roberts et al., 2015a; Grenier, 2015).	Lack of resources, funding, time, and human capital required for high-fidelity simulation (Nehring & Lashley, 2010).	Potential risk for inconsistent SP training and performance within student cohorts (Wallace, 2006).	Students find the rotations to be complex and not suited to develop confidence for entry-level practice (Costa, 2015).	Limited direct contact with OT practitioners during the overall experience (Overton et al., 2009).
Reduced satisfaction with the quality of instruction, scaffolding, and creative learning in clinical settings (Casares, et al. 2003).	Patient-centered practice model in clinics may compete with student-centered pedagogy (Costa, 2015).	Simulation may be perceived as contrived (Miller et al., 2012; Ulrich & Mancini, 2014).	Organizational support, planning, and training requirements may produce scheduling issues (Smith & Lammers, 2014).	Faculty report problems with setting up the experience and identifying team members who understand the OT role (Overton et al., 2009).	Diffused focus on subject-specific knowledge may influence student success in high-stakes exams (Hooper, 2017).
Delays in graduation based on fieldwork acceptance and academic progression (Lew et al., 2007).	Difficult for fieldwork educators to train multiple students concurrently (Recker-Hughes et al., 2014).	Clinical training hours with actual patients may be reduced (Hayden et al., 2014).	Obtaining resources such as medical equipment, moulage, and hospital beds increase cost of the training (Nehring & Lashley, 2010).	The service models at specific role-emerging site may not emphasize occupation-based perspectives (Costa, 2015).	Employment opportunities and reimbursement in nontraditional practice could be limited (AOTA, 2015a).
High allostatic load and reduced professional autonomy in traditional medical settings (Grenier, 2015; Slater, 2006).	Possible gaps between didactic curriculum and experiential training (Costa, 2015).	Interprofessional collaboration may produce competing demands on subject-specific learning (Tannenbaum et al., 2020; Palmer, 2017).	With possible exposure to same group of SPs, there may be perceived redundancy in teaching skills for patient care (Hatkevich & Miller, 2009).	Due to limited interaction between student and OT practitioners, providing immediate feedback to the students can be a challenge (Hardiman, 2012).	Students report limited confidence in generalizing skills learned in nontraditional practice to other practice environments (Costa, 2015).

Appendix R
Permission for Reproducing Figure 5.1

Re: Request for publishing excerpt

Edward Giesbrecht <Ed.Giesbrecht@umanitoba.ca>
Tue 8/4/2020 8:11 AM
To: Shirish Lala <Shirish.Lala@daytonastate.edu>

CAUTION: This email came from outside Daytona State.

Dear Shirish:
Thank you for your email. You have permission (on behalf of the article authors) to use this material.

Regards
Ed Giesbrecht

From: Shirish Lala <Shirish.Lala@daytonastate.edu>
Date: Monday, August 3, 2020 at 12:26 PM
To: Edward Giesbrecht <Ed.Giesbrecht@umanitoba.ca>
Subject: Request for publishing excerpt

Caution: This message was sent from outside the University of Manitoba.

Greetings Dr. Giesbrecht,

I hope you are well.

I am a doctoral student at Johns Hopkins University and am writing my dissertation on the following topic:

> A mixed methods comparison of perceived benefits and barriers to workplace training in traditional fieldwork, role-emerging placements, and standardized patient programs in Occupational therapy education: Stakeholder perspectives and implications for future practice.

I was wondering if I could have your permission and that from the other authors to reproduce the following figure in my dissertation with appropriate citations.

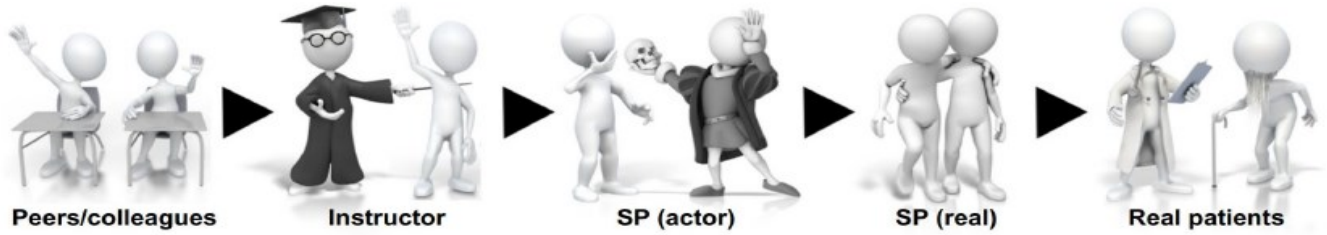

Figure 3 Learning continuum: preferred scenarios for learning and practicing clinical skills.
Abbreviation: SP, standardized patient.

About the Author

Originally from Mumbai, India, Shirish Lala pursued his undergraduate education in allied health at the Lokmanya Tilak Municipal Medical College between 1999-2004. He moved to the United States in 2005 to pursue an employment opportunity as an Occupational Therapist in Central Florida. Shirish worked at Orange City Nursing and Rehabilitation Center in DeBary, Florida, while pursuing his post-professional distance Master of Health Science degree at the University of Florida. Under the guidance of Dr. Sherrilene Classen at the Department of Occupational Therapy, he graduated from the University of Florida in 2008. He started working as the Academic Clinical Coordinator at Daytona State College's Occupational Therapy Assistant program in 2009. Since then Shirish has pursued a career in Fieldwork education as a Professor and Clinical Coordinator in the School of Health Careers. During the summers, he often pursues his passion for adventure as a traveling Occupational Therapist at several locations in Florida, Illinois, and California. In the past decade, he has been actively involved with the National Board for Certification in Occupational Therapy as a volunteer for certification exam validation and item development. In addition, Shirish has presented at various allied health conferences at the state and national levels. He has presented at Daytona State College's Academic Excellence Symposium, Stetson University's Colloquium on Teaching and Learning Innovation, and Johns Hopkins University School of Education. Shirish has attended professional development activities at Columbia University, Colorado State University, Shirley Ryan Ability Lab (formerly known as Rehabilitation Institute of Chicago), and Brooks Rehabilitation Hospital. In 2018, he was awarded the Outstanding Young Alumnus Award by the University of Florida, Department of Occupational Therapy, for excellence in professional practice and exceptional leadership in the advancement of public health and health professions. In 2021, he was nominated for the Dr. John J. Guthrie, Jr. Award for Research and Professional Development at Daytona State College. During his spare time, Shirish enjoys traveling, hiking, gardening, and spending time with his family. He can be reached at shirishlala@gmail.com